

SHARP SERVICE MANUAL

No. S2010CDBA120/

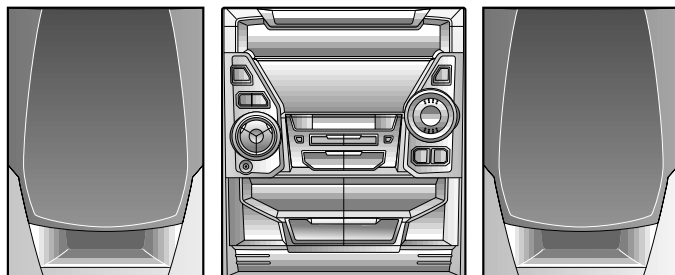


Illustration: CD-BA120



CD-BA120

CD-BA120 Mini Component System consisting of CD-BA120 (main unit) and CP-BA120 (speaker system).

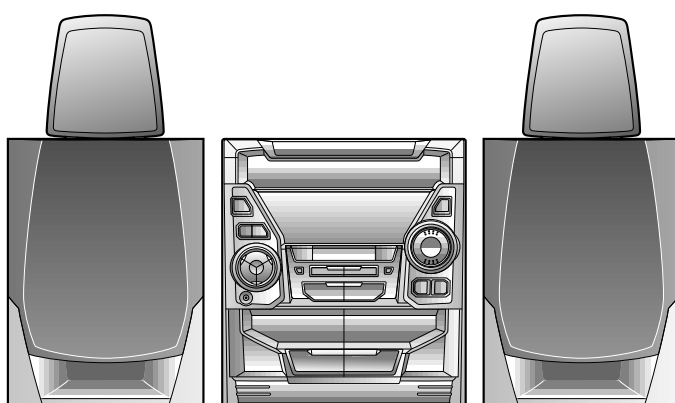


Illustration: CD-BA125



CD-BA125

CD-BA125 Mini Component System consisting of CD-BA125 (main unit), CP-BA125 (Front speaker) and GBOXS0042AWM1 (rear speaker).



- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

CONTENTS

	Page
IMPORTANT SERVICE NOTES (FOR U.S.A. ONLY)	2
SPECIFICATIONS	2
NAMES OF PARTS	3
OPERATION MANUAL	5
QUICK GUIDE	6
DISASSEMBLY	7
REMOVING AND REINSTALLING THE MAIN PARTS	10
ADJUSTMENT	11
NOTES ON SCHEMATIC DIAGRAM	13
WAVEFORMS OF CD CIRCUIT	14
BLOCK DIAGRAM	15
SCHEMATIC DIAGRAM / WIRING SIDE OF P.W.BOARD	18
VOLTAGE	34
TROUBLESHOOTING (CD SECTION)	35
FUNCTION TABLE OF IC.....	39
FL DISPLAY	45
REPLACEMENT PARTS LIST/EXPLODED VIEW	
PACKING OF THE SET (FOR U.S.A. ONLY)	

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

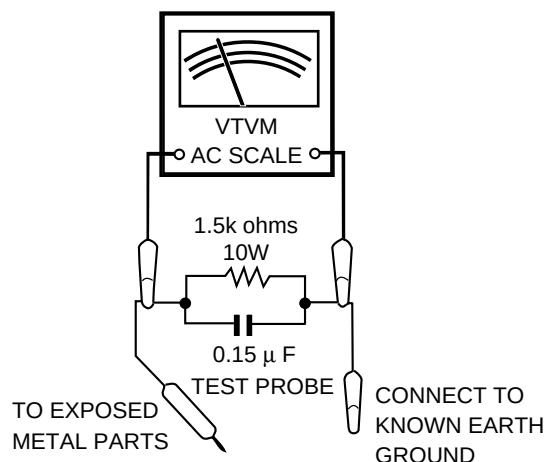
IMPORTANT SERVICE NOTES (FOR U.S.A. ONLY)

BEFORE RETURNING THE AUDIO PRODUCT

(Fire & Shock Hazard)

Before returning the audio product to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the audio product.
2. Inspect all protective devices such as insulating materials, cabinet, terminal board, adjustment and compartment covers or shields, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - * Plug the AC line cord directly into a 120 volt AC outlet.
 - * Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as conduit or electrical ground connected to earth ground.
 - * Use a VTVM or VOM with 1000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor (See diagram).
 - * Connect the resistor connection to all exposed metal parts having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.



All check must be repeated with the AC line cord plug connection reversed.

Any reading of 0.3 volt RMS (this corresponds to 0.2 milliamp. AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the audio product to the owner.

CD-BA120/125

● General

Power source: AC 120 V, 60 Hz
Power consumption: 35 W
Dimensions: Width; 10-5/8" (270 mm)
 Height; 11-13/16" (300 mm)
 Depth; 14-11/16" (373 mm)
Weight: 10.6 lbs. (4.8 kg)

● Amplifier section

Output power: 10 watts minimum RMS per channel into 8 ohms from 100 Hz to 20 kHz, 10 % total harmonic distortion
(Except for Canada)
Output power: RMS; 20 W (10 W + 10 W)
(For Canada) (10 % T.H.D.)
Output terminals: Speakers; 8 ohms
(CD-BA120) Headphones; 16-50 ohms (recommended; 32 ohms)
Output terminals: Front speakers; 8 ohms
(CD-BA125) Rear speakers; 16 ohms
 Headphones; 16-50 ohms (recommended; 32 ohms)

● Compact disc player section

Type: 3-disc multi-play compact disc player
Signal readout: Non-contact, 3-beam semiconductor laser pickup
D/A converter: 1-bit D/A converter
Frequency response: 20 - 20,000 Hz
Dynamic range: 90 dB (1 kHz)

● Tuner section

Frequency range: FM; 87.5-108 MHz
 AM; 530-1,720 kHz

SPECIFICATIONS

● Cassette deck section

Frequency response: 50-14,000 Hz (Normal tape)
Signal/noise ratio: 55 dB (TAPE 1, playback)
 50 dB (TAPE 2, recording/playback)
Wow and flutter: 0.3 % (WRMS)

CP-BA120/125

● Speaker section

Type: 4" (10 cm) full-range speaker
Maximum input power: 20 W
Rated input power: 10 W
Impedance: 8 ohms
Dimensions: Width; 8-11/16" (220 mm)
 Height; 11-13/16" (300 mm)
 Depth; 7-1/16" (180 mm)
Weight: 4.4 lbs. (2.0 kg)/each

GBXS0042AWM1

● Rear speaker section (CD-BA125 Only)

Type: 3-3/32"(8 cm) full-range speaker
Maximum input power: 5 W
Rated input power: 10 W
Impedance: 16 ohms
Dimensions: Width; 6" (150 mm)
 Height; 6" (150 mm)
 Depth; 3" (78 mm)
Weight: 0.9 lbs. (0.4 kg)/each

Specifications for this model are subject to change without prior notice.

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

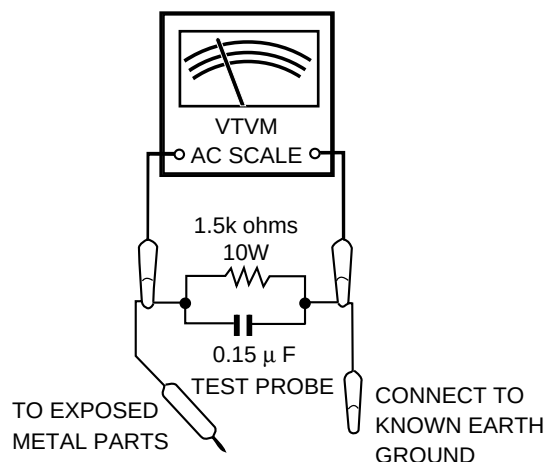
IMPORTANT SERVICE NOTES (FOR U.S.A. ONLY)

BEFORE RETURNING THE AUDIO PRODUCT

(Fire & Shock Hazard)

Before returning the audio product to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the audio product.
2. Inspect all protective devices such as insulating materials, cabinet, terminal board, adjustment and compartment covers or shields, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - * Plug the AC line cord directly into a 120 volt AC outlet.
 - * Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as conduit or electrical ground connected to earth ground.
 - * Use a VTVM or VOM with 1000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor (See diagram).
 - * Connect the resistor connection to all exposed metal parts having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.



All check must be repeated with the AC line cord plug connection reversed.

Any reading of 0.3 volt RMS (this corresponds to 0.2 milliamp. AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the audio product to the owner.

CD-BA120/125

● General

Power source: AC 120 V, 60 Hz
Power consumption: 35 W
Dimensions: Width; 10-5/8" (270 mm)
 Height; 11-13/16" (300 mm)
 Depth; 14-11/16" (373 mm)
Weight: 10.6 lbs. (4.8 kg)

● Amplifier section

Output power: 10 watts minimum RMS per channel into 8 ohms from 100 Hz to 20 kHz, 10 % total harmonic distortion
(Except for Canada)
Output power: RMS; 20 W (10 W + 10 W)
(For Canada) (10 % T.H.D.)
Output terminals: Speakers; 8 ohms
(CD-BA120) Headphones; 16-50 ohms (recommended; 32 ohms)
Output terminals: Front speakers; 8 ohms
(CD-BA125) Rear speakers; 16 ohms
 Headphones; 16-50 ohms (recommended; 32 ohms)

● Compact disc player section

Type: 3-disc multi-play compact disc player
Signal readout: Non-contact, 3-beam semiconductor laser pickup
D/A converter: 1-bit D/A converter
Frequency response: 20 - 20,000 Hz
Dynamic range: 90 dB (1 kHz)

● Tuner section

Frequency range: FM; 87.5-108 MHz
 AM; 530-1,720 kHz

SPECIFICATIONS

● Cassette deck section

Frequency response: 50-14,000 Hz (Normal tape)
Signal/noise ratio: 55 dB (TAPE 1, playback)
 50 dB (TAPE 2, recording/playback)
Wow and flutter: 0.3 % (WRMS)

CP-BA120/125

● Speaker section

Type: 4" (10 cm) full-range speaker
Maximum input power: 20 W
Rated input power: 10 W
Impedance: 8 ohms
Dimensions: Width; 8-11/16" (220 mm)
 Height; 11-13/16" (300 mm)
 Depth; 7-1/16" (180 mm)
Weight: 4.4 lbs. (2.0 kg)/each

GBXS0042AWM1

● Rear speaker section (CD-BA125 Only)

Type: 3-3/32"(8 cm) full-range speaker
Maximum input power: 5 W
Rated input power: 10 W
Impedance: 16 ohms
Dimensions: Width; 6" (150 mm)
 Height; 6" (150 mm)
 Depth; 3" (78 mm)
Weight: 0.9 lbs. (0.4 kg)/each

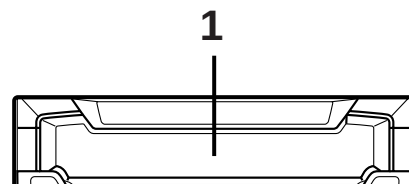
Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

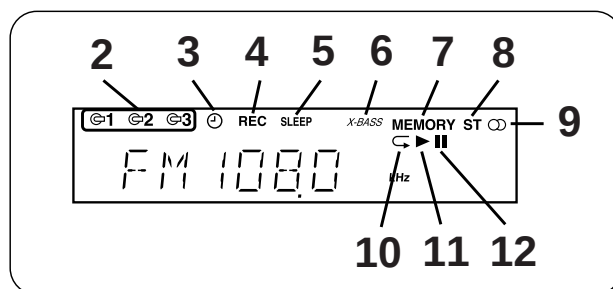
CD-BA120/125

■ Front panel

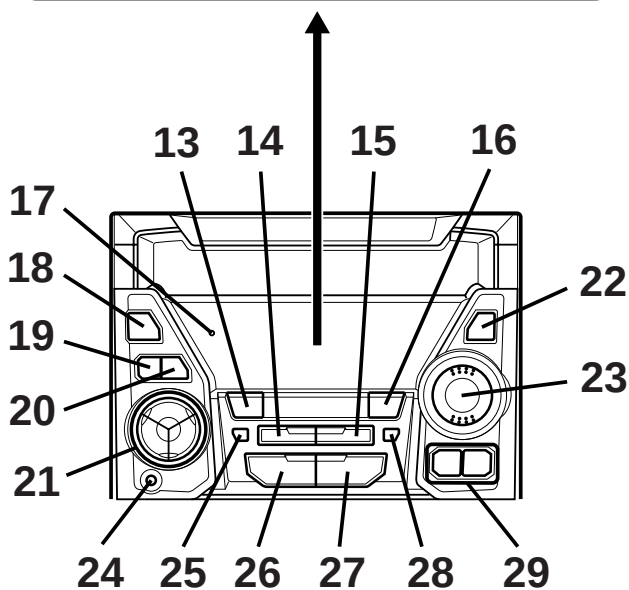
1. (CD) Disc Tray



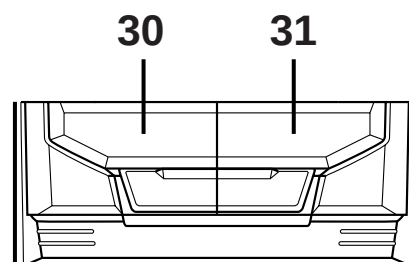
2. (CD) Disc Number Indicators
3. Timer Indicator
4. Record Indicator
5. Sleep Indicator
6. Extra Bass Indicator
7. (CD/TUNER) Memory Indicator
8. FM Stereo Mode Indicator
9. FM Stereo Indicator
10. (CD) Repeat Indicator
11. (CD/TAPE) Play Indicator
12. (CD) Pause Indicator



13. (CD) Disc Skip Button
14. (CD) Track Down/Review Button
(TUNER) Preset Down Button
(TAPE 2) Rewind Button
15. (CD) Track Up/Cue Button
(TUNER) Preset Up Button
(TAPE 2) Fast Forward Button
16. (CD) Open/Close Button
17. Timer Set Indicator
18. On/Stand-by Button
19. Timer/Sleep Button
20. Clock Button
21. Function Selector Buttons
22. Equalizer Mode Selector/Extra Bass/Demo Mode Button
23. Volume Up/Down Buttons
24. Headphone Socket
25. Memory/Set Button
26. (CD/TAPE) Stop Button
27. (CD) Play/Repeat Button
(TAPE) Play Button
28. (TAPE 2) Record Pause Button
29. Tuning/Time Up/Down Buttons



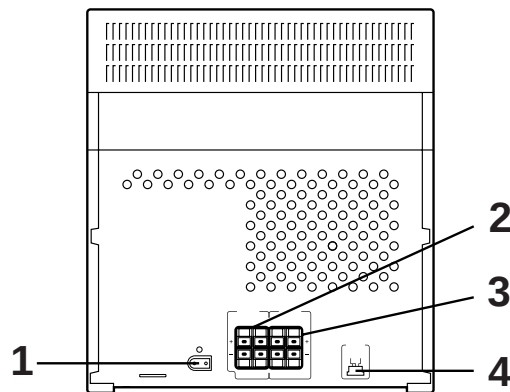
30. (TAPE 1) Cassette Compartment
31. (TAPE 2) Cassette Compartment



CD-BA120/125

■ Rear panel

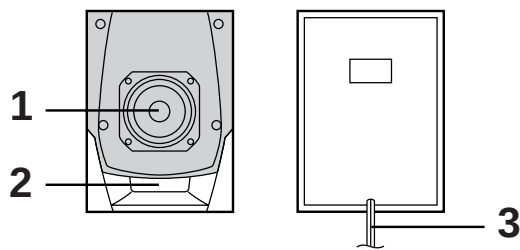
1. AC Power Input Socket
2. Rear Speaker Terminals (CD-BA125 Only)
3. Front Speaker Terminals
4. FM/AM Loop Aerial Socket



CP-BA120/125

■ Front speaker

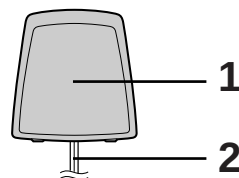
1. Woofer
2. Bass Reflex Duct
3. Speaker Wire



GBOXS0042AWM1

■ Rear speaker (CD-BA125 Only)

1. Full-Range Speaker
2. Speaker Wire



CD-BA120/125

■ Remote control

1. Remote Control Transmitter LED

● CD control section

2. Disc Number Select Buttons
3. Memory Button
4. Pause Button
5. Clear Button
6. Track Down/Review Button
7. Track Up/Cue Button
8. Disc Skip Button
9. Play/Repeat Button
10. Stop Button
11. Random Button

● Tuner control section

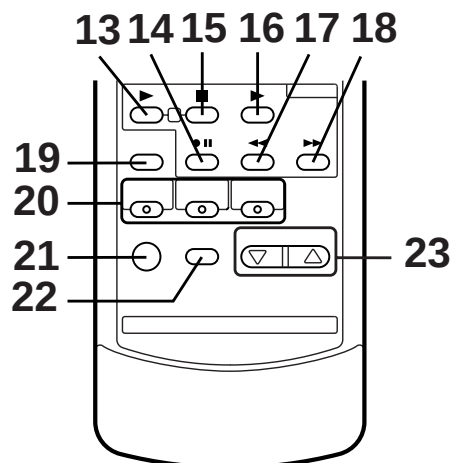
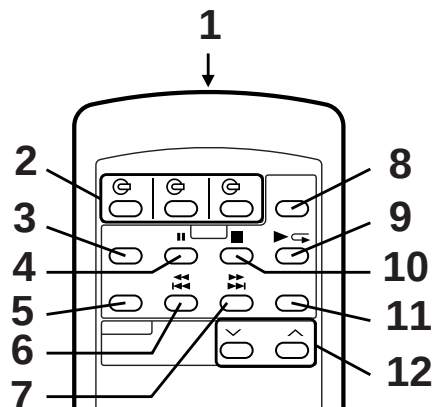
12. Preset Up/Down Buttons

● Tape control section

13. (TAPE 1) Play Button
14. (TAPE 2) Record Pause Button
15. (TAPE 1/2) Stop Button
16. (TAPE 2) Play Button
17. (TAPE 2) Rewind Button
18. (TAPE 2) Fast Forward Button

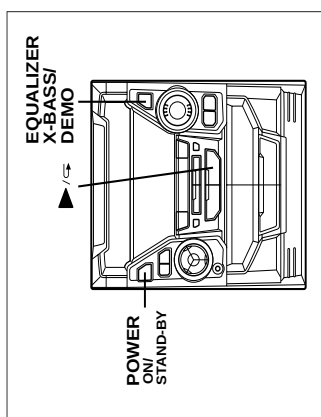
● Common section

19. Equalizer Mode Selector Button
20. Function Selector Buttons
21. On/Stand-by Button
22. Extra Bass Button
23. Volume Up/Down Buttons



OPERATION MANUAL

RESETTING THE MICROCOMPUTER



Reset the microcomputer under the following conditions:

- To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).
 - If the display is not correct.
 - If the operation is not correct.
- Press the ON/STAND-BY button to enter the stand-by mode.
 - While pressing down the $\blacktriangle/\rightarrow$ button and the EQUALIZER/X-BASS/DEMO button, hold down the ON/STAND-BY button for at least 1 second.

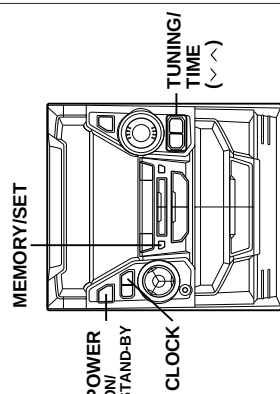
- "CLEAR AL" will appear.

Caution:

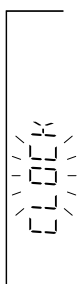
- The operation explained above will erase all data stored in memory including clock and timer settings, and tuner and CD presets.

SETTING THE CLOCK

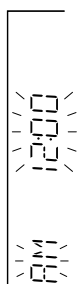
(Main unit operation)



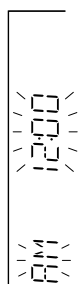
2



3



4

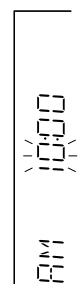


AM 12:00 ↔ AM 0:00 ↔ 0:00

5



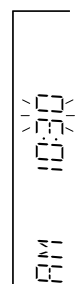
6



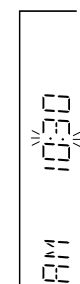
7



8



9



In this example, the clock is set for the 12-hour (AM 12:00) system.

- Press the ON/STAND-BY button to enter the stand-by mode.
- Press the CLOCK button.
- Within 5 seconds, press the MEMORY/SET button.
- Press the TUNING/TIME ($\vee$ or $\wedge$) button to select the time display mode.
 "AM 12:00" → The 12-hour display will appear.
 (AM 12:00 - PM 11:59)
 "AM 0:00" → The 12-hour display will appear.
 (AM 0:00 - PM 11:59)
 "0:00" → The 24-hour display will appear.
 (0:00 - 23:59)

- Note that this can only be set when the unit is first installed or it has been reset (see page 15).

- Press the MEMORY/SET button.

- Press the TUNING/TIME ($\vee$ or $\wedge$) button to adjust the hour.
 Press the TUNING/TIME ($\vee$ or $\wedge$) button once to advance the time by 1 hour. Hold it down to advance continuously.
 When the 12-hour display is selected, "AM" will change automatically to "PM".

- Press the MEMORY/SET button.

- Press the TUNING/TIME ($\vee$ or $\wedge$) button to adjust the minutes.

- Press the TUNING/TIME ($\vee$ or $\wedge$) button once to advance the time by 1 minute. Hold it down to change the time in 5 minute intervals.

- The hour setting will not advance even if minutes advance from "59" to "00".

- Press the MEMORY/SET button.

- The clock starts operating from "0" second.
 (Seconds are not displayed.)

And then the clock display will disappear after a few seconds.

To see the time display:

- Press the CLOCK button.
- The time display will appear for about 5 seconds.

Note:

- The clock display will flash on and off at the push of the CLOCK button when the AC power supply is restored after a power failure occurs or after the AC power cord is disconnected. If this happens, follow the procedure below to change the clock time.

To change the clock time:

- Press the CLOCK button.
- Within 5 seconds, press the MEMORY/SET button.
- Perform steps 6 - 9 above.

To change the time display mode:

- Perform steps 1 - 2 in the section "RESETTING THE MICROCOMPUTER", on page 15.
- Perform steps 1 - 9 above.

1 Check the supplied accessories / Compruebe los accesorios suministrados



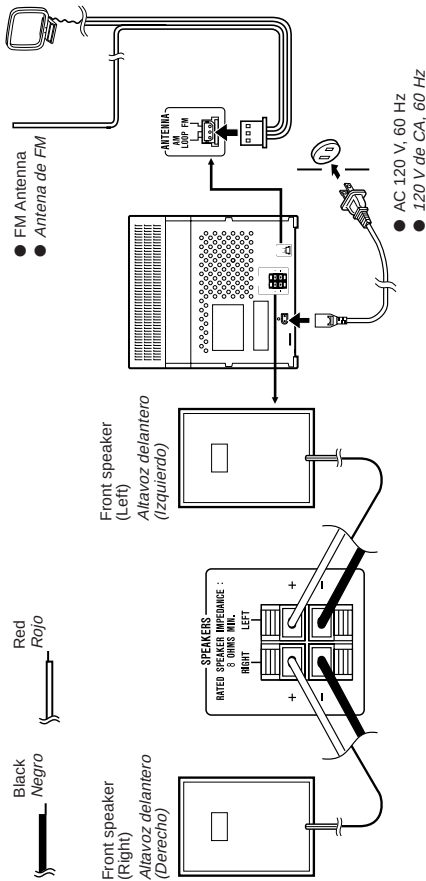
2 Preparation for use / Preparación para su uso

Speaker connection Conexión de los altavoces

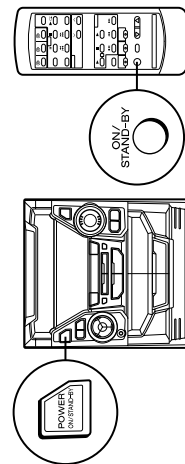


Antenna connection Conexión de las antenas

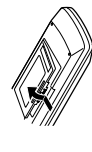
- AM Loop Antenna
● Antena de cuadro de AM
- FM Antenna
● Antena de FM



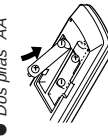
Switching between power-on and stand-by mode Cambio entre la conexión de la alimentación y el modo de reserva



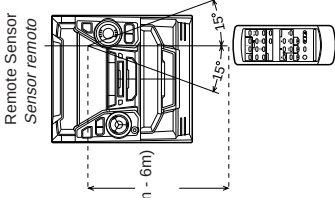
Remote control Controlador remoto



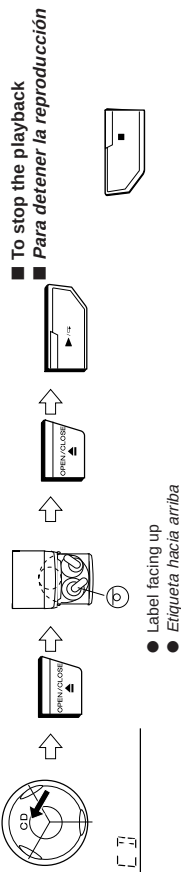
- 2 "AA" batteries
● Dos pilas "AA"



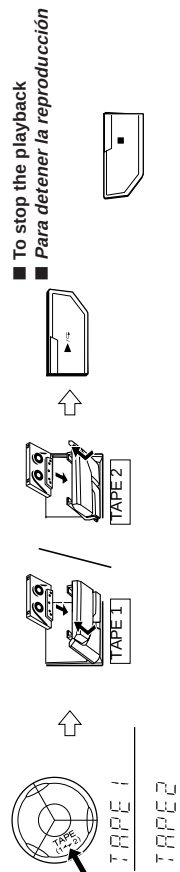
- Batteries are not included.
● Las pilas no están incluidas.



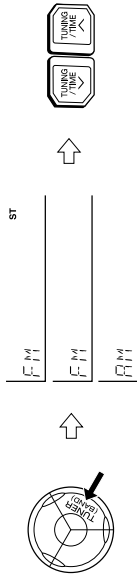
3 Listening to a CD / Audición de discos CD



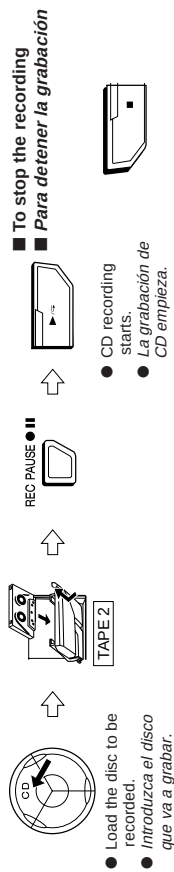
4 Listening to a tape / Audición de una cinta



5 Listening to the radio / Audición de la radio

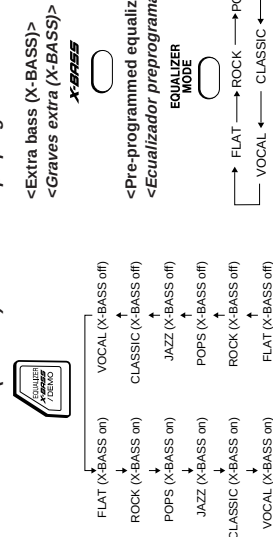
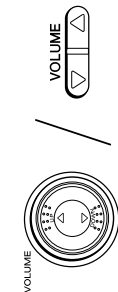


6 Recording from CDs / Grabaciones de discos CD



7 Sound control / Control del sonido

- Extra bass (X-BASS) / Pre-programmed equalizer
- Graves extra (X-BASS) / ecualizador preprogramado



TINS0533AWZZ A9911.HK

Printed in Malaysia
Impreso en Malaysia

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

CD-BA120/125

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw (A1) x4	7-1
2	Side Panel (Left/right)	1. Screw (B1) x6	7-1
3	CD Player Unit/ CD Tray Cover	1. Turn on the power supply, open the disc tray, take out the CD cover, and close. (Note 1) 2. Screw (C1) x1 3. Hook (C2) x3 4. Hook (C3) x2 5. Socket (C4) x2	7-2
4	Main/Headphones PWB/Rear Panel	1. Screw (D1) x11 2. Socket (D2) x4 3. Flat Cable (D3) x1	7-2, 8-2
5	Front Panel	1. Screw (E1) x3	8-2
6	Display PWB	1. Screw (F1) x9 2. Flat Cable (F2) x1	8-3
7	Tape Mechanism	1. Open the cassette holder. 2. Screw (G1) x6	8-3
9	Turntable	1. Hook (H1) x2 2. Cover (H2) x1	8-4
10	Disc Tray	1. Turn fully the lock lever in the arrow direction. 2. While holding the lock lever, rotate the cam gear until the cam gear rib engages with the clamp lever. 3. Push the slide holder backward to engage the claw with the groove and remove it in the direction of the arrow. (J1) x6	7-3 8-1 8-5
11	CD Servo PWB (Note 2)	1. Screw (K1) x1 2. Hook (K2) x2 3. Socket (K3) x4	8-6
12	CD Mechanism	1. Hook (L1) x2 2. Hook (L2) x3	9-1
13	Loading Motor PWB	1. Hook (M1) x5	9-1

Note 1:

How to open the changer manually. (Fig. 7-3)

1. In this state, turn fully the lock lever in the arrow direction through the hole on the loading chassis bottom.
2. While holding the lock lever, rotate the cam gear anticlockwise until the cam gear rib engages with the clamp lever. (Fig. 8-1)
3. After that, push forward the CD slide holder.

Note 2:

1. After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of the connector so as to protect the optical pickup from electrostatic damage.

CD-BA120/125

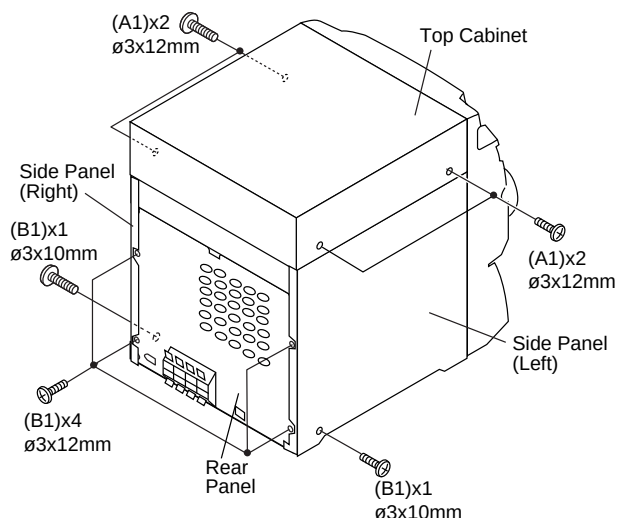


Figure 7-1

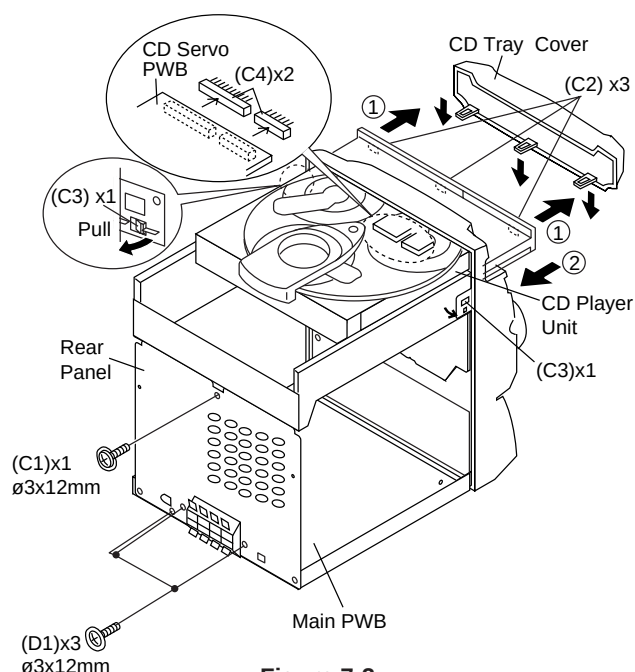


Figure 7-2

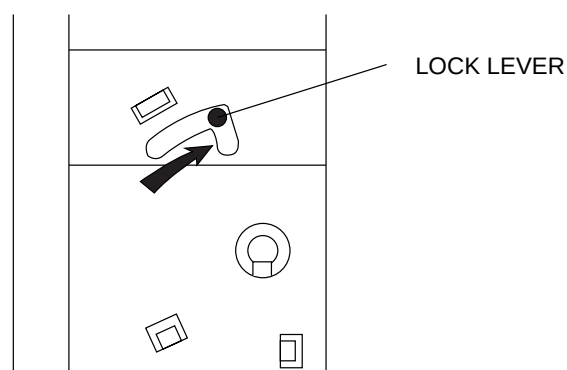


Figure 7-3

Note 3:

1. Be careful not to break the claw of the CD mechanism.
2. When fining back the cam gear assembly, let it lock by front movement.

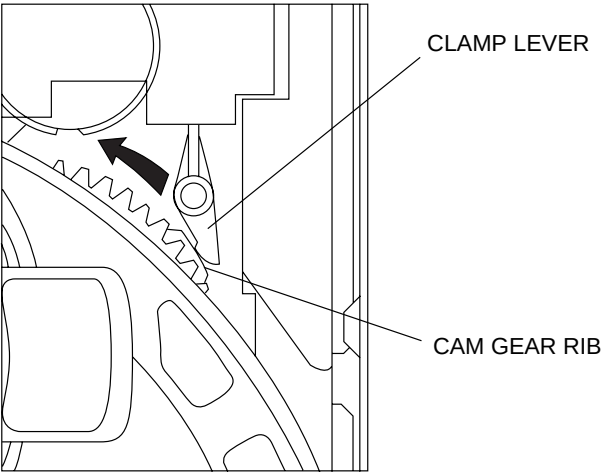


Figure 8-1

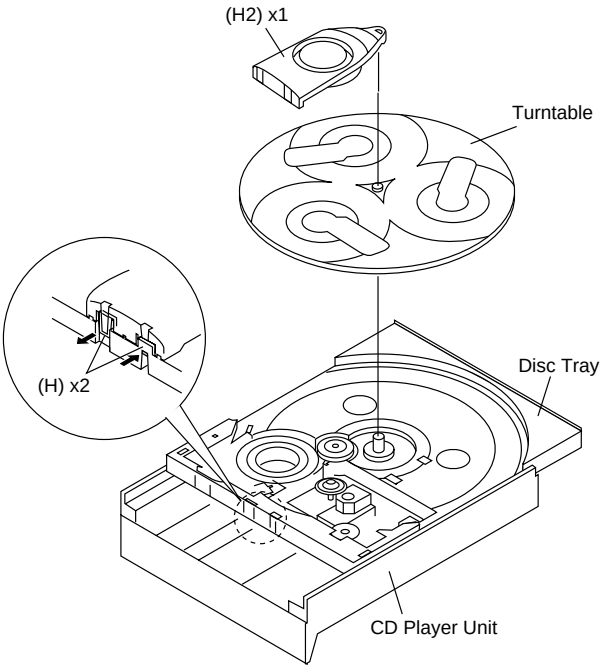


Figure 8-4

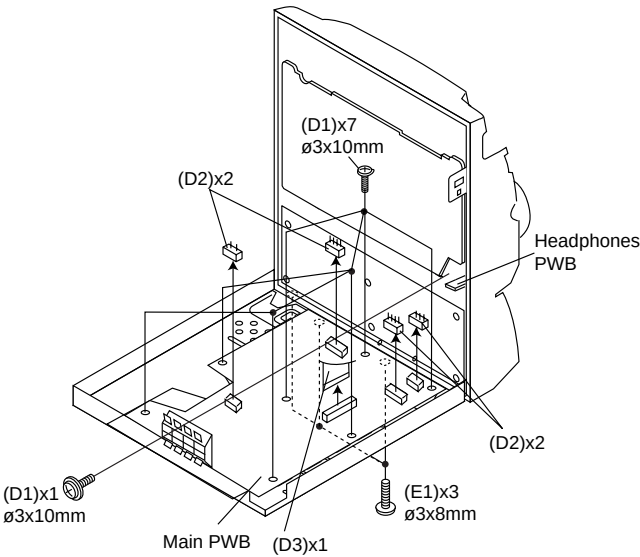


Figure 8-2

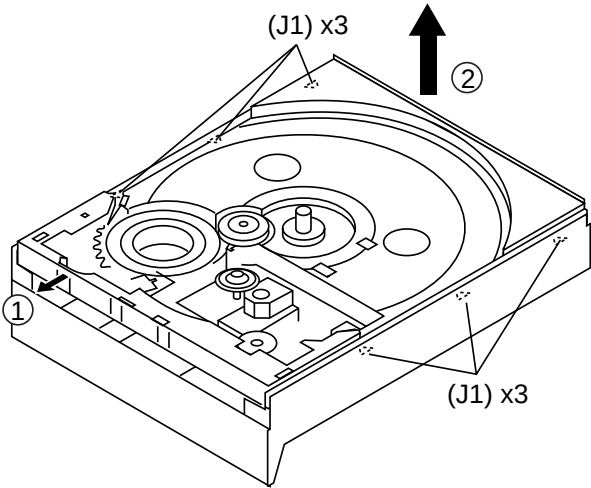


Figure 8-5

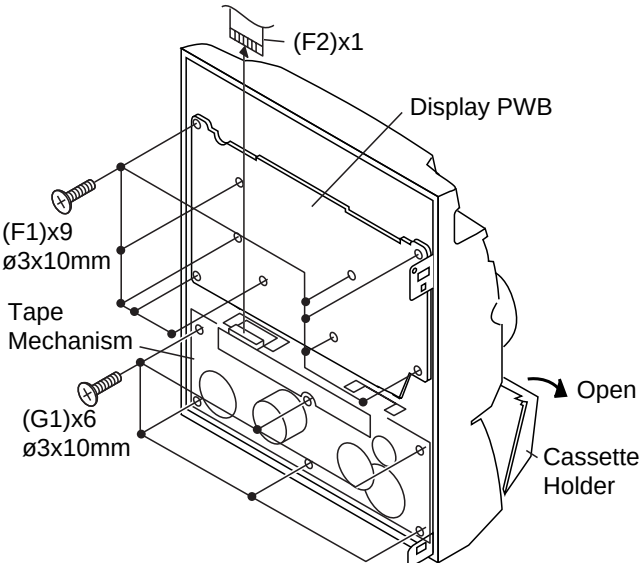


Figure 8-3

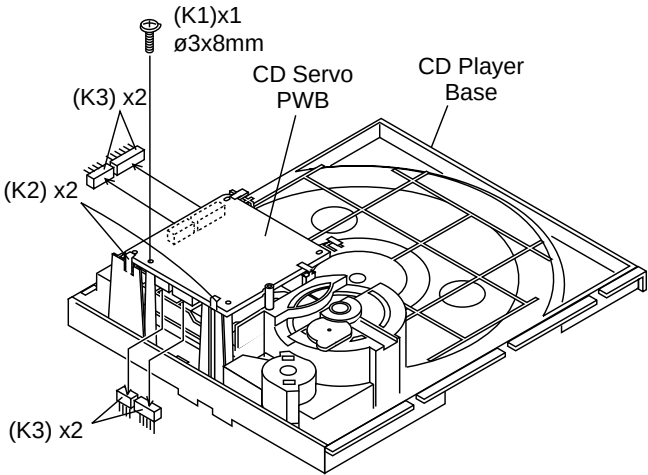


Figure 8-6

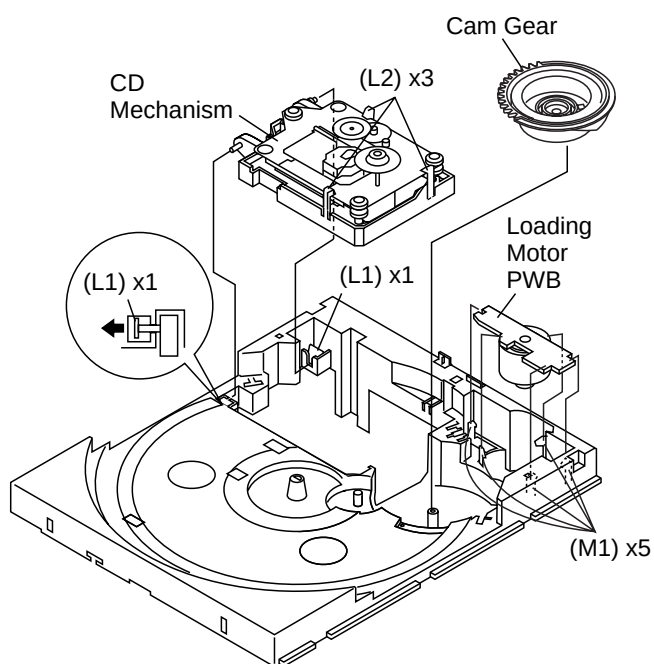


Figure 9-1

CP-BA120/125

STEP	REMOVAL	PROCEDURE	FIGURE
1	Speaker	1. Net (A1) x1 2. Duct Panel (A2) x1 3. Screw (A3) x4	9-1 9-2

CP-BA120/125

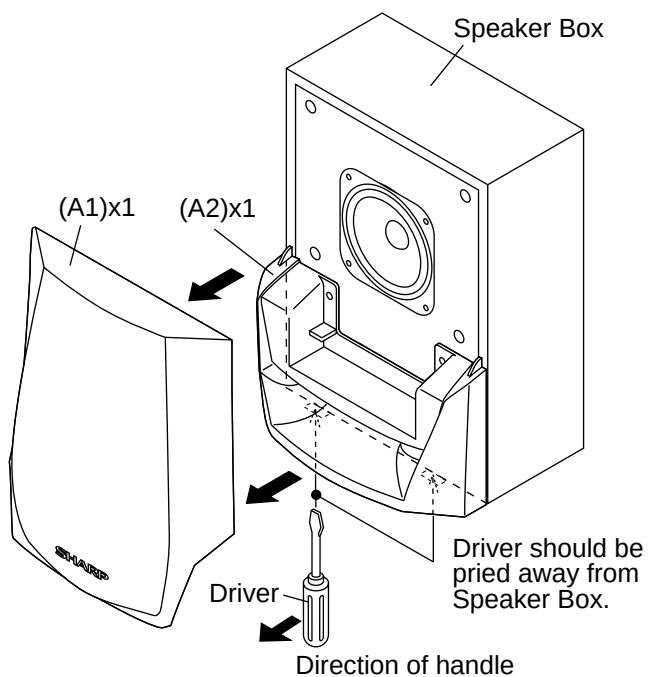


Figure 9-2

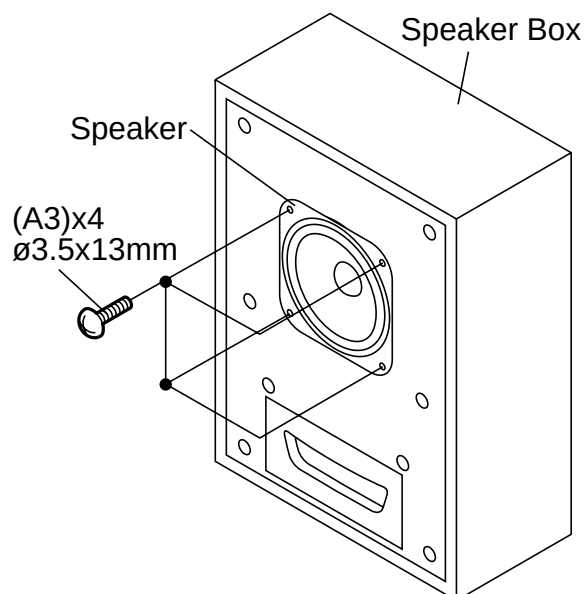


Figure 9-3

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1 to 5 and 7 of the disassembly method to remove the tape mechanism.

How to remove the record/playback and erase heads (TAPE 2) (See Fig. 10-1)

1. Carefully remove the record/playback head and erase head screw (A1) x 2 pcs.

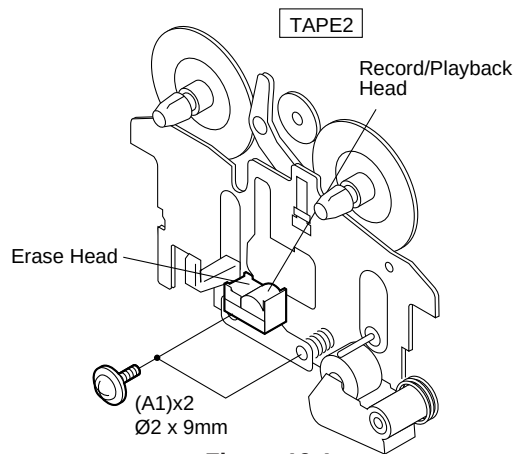


Figure 10-1

How to remove the playback head (TAPE 1) (See Fig. 10-2)

1. Carefully remove the playback head screw (B1) x 2 pcs.

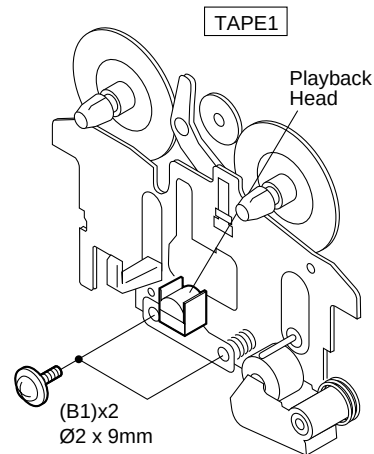


Figure 10-2

How to remove the pinch roller (TAPE 1/2) (See Fig. 10-3)

1. Carefully bend the pinch roller pawl in the direction of the arrow <A>, and remove the pinch roller (C1) upwards.

Note:

When installing the pinch roller, pay attention to the spring mounting position.

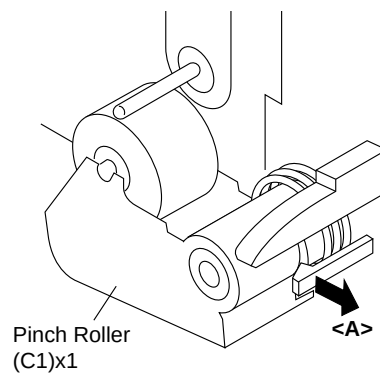


Figure 10-3

How to remove the belt (TAPE 1) (See Fig. 10-4)

1. Remove the main belt (D1) x 1 pc., from the motor side.
2. Remove the FF/REW belt (D2) x 1 pc.

How to remove the belt (TAPE 2) (See Fig. 10-4)

1. Remove the main belt (E1) x 1 pc., from the motor side.
2. Remove the FF/REW belt (E2) x 1 pc.

How to remove the motor (See Fig. 10-5)

1. Remove the screws (F1) x 2 pcs., to remove the motor.

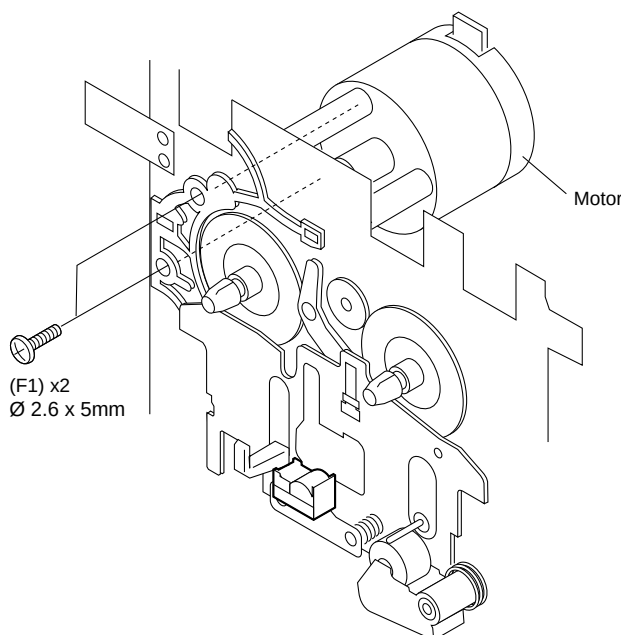


Figure 10-5

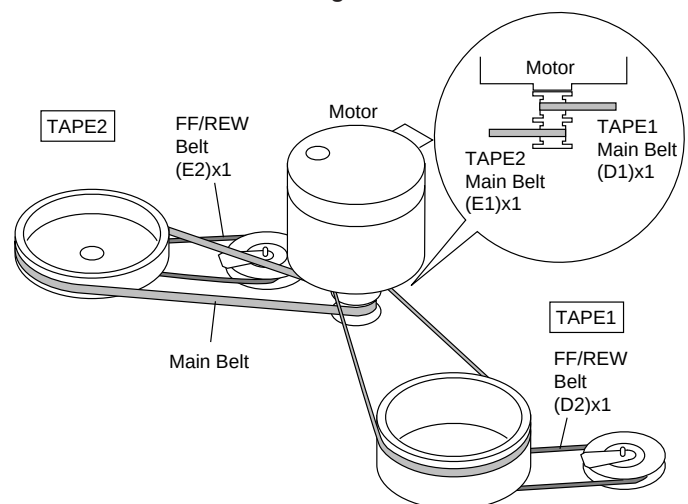


Figure 10-4

CD MECHANISM SECTION

Perform steps 1, 2, 3, 9, 12 and 13 of the disassembly method to remove the CD mechanism.

How to remove the loading motor

(See Fig. 11-1)

1. Bend the hooks (A1) x 5 pcs., to remove the loading motor.

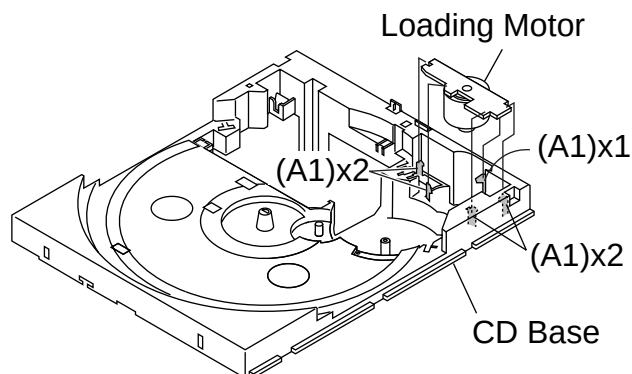


Figure 11-1

How to remove the pickup (See Fig. 11-2)

1. Remove the screws (B1) x 2 pcs., to remove the shaft (B2).
2. Remove the stop washer (B3) x 1 pc., to remove the gear (B4).
3. Remove the pickup.

Note

After removing the connector for the optical pickup from the connector wrap the conductive aluminium foil around the front end of connector so as to protect the optical pickup from electrostatic damage.

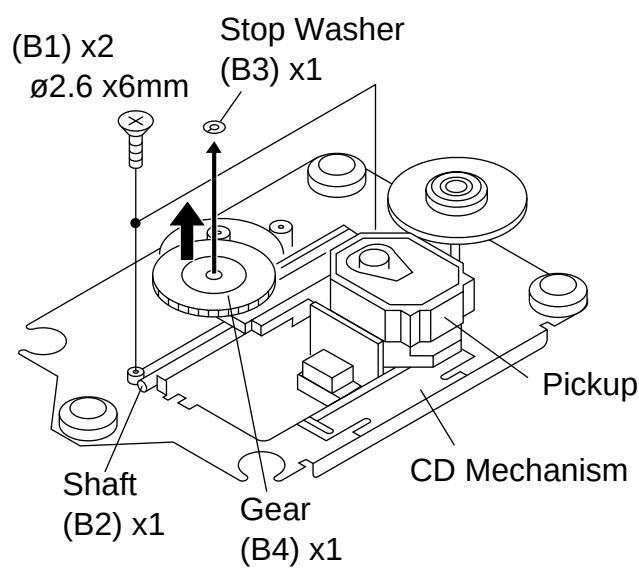


Figure 11-2

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2111	Tape 1: Over 80 g Tape 2: Over 80 g

• Torque Check

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 80 g. cm	30 to 80 g.cm
Fast forward: TW-2231	—	70 to 180 g.cm
Rewind: TW-2231	—	70 to 180 g.cm

• Tape Speed

	Test Tape	Adjusting Point	Specified Value	Instrument Connection
Normal speed	MTT-111	Variable Resistor in motor.	3,000 ± 30 Hz	Speaker terminal (Load resistance: 6 ohms)

TAPE MECHANISM

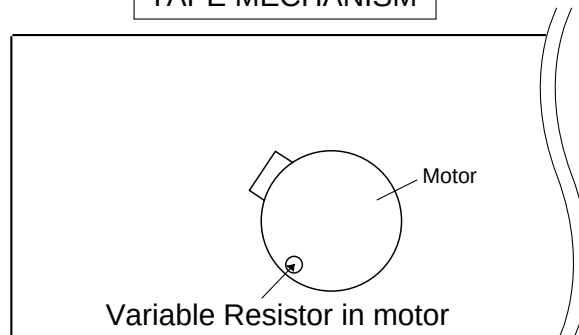


Figure 11-3

CD MECHANISM SECTION

Perform steps 1, 2, 3, 9, 12 and 13 of the disassembly method to remove the CD mechanism.

How to remove the loading motor

(See Fig. 11-1)

1. Bend the hooks (A1) x 5 pcs., to remove the loading motor.

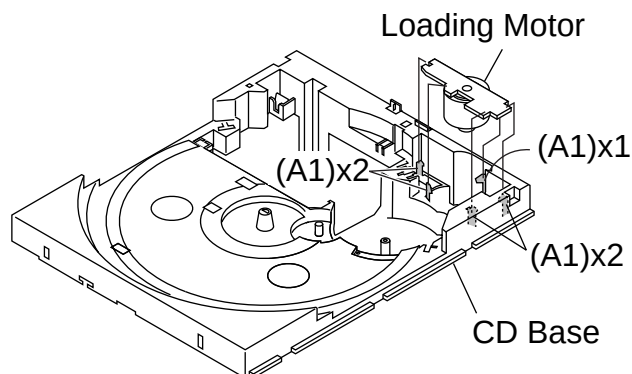


Figure 11-1

How to remove the pickup (See Fig. 11-2)

1. Remove the screws (B1) x 2 pcs., to remove the shaft (B2).
2. Remove the stop washer (B3) x 1 pc., to remove the gear (B4).
3. Remove the pickup.

Note

After removing the connector for the optical pickup from the connector wrap the conductive aluminium foil around the front end of connector so as to protect the optical pickup from electrostatic damage.

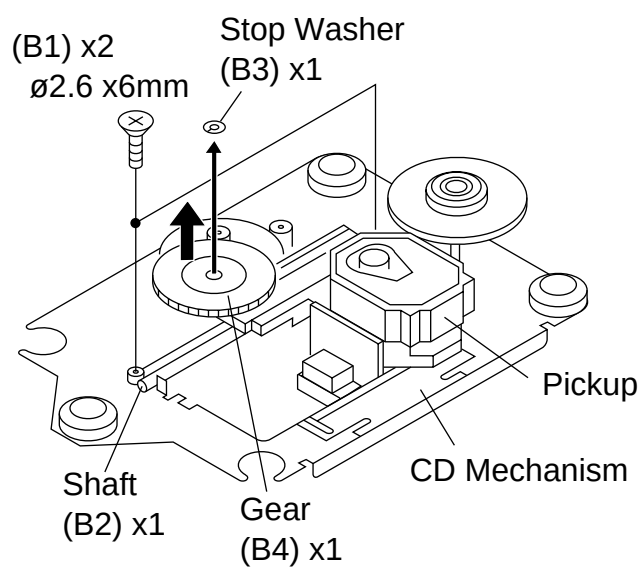


Figure 11-2

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2111	Tape 1: Over 80 g Tape 2: Over 80 g

• Torque Check

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 80 g. cm	30 to 80 g.cm
Fast forward: TW-2231	—	70 to 180 g.cm
Rewind: TW-2231	—	70 to 180 g.cm

• Tape Speed

	Test Tape	Adjusting Point	Specified Value	Instrument Connection
Normal speed	MTT-111	Variable Resistor in motor.	3,000 ± 30 Hz	Speaker terminal (Load resistance: 6 ohms)

TAPE MECHANISM

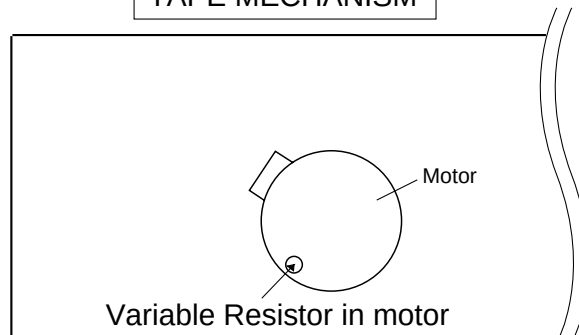


Figure 11-3

CD-BA120/125

TUNER SECTION

fL: Low-range frequency

fH: High-range frequency

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
AM IF	450 kHz	1,720 kHz	T351	*1
AM Band Coverage	—	530 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	(fL): T303	*1

*1. Input: Antenna, Output: TP302

*2. Input: Antenna, Output: TP301

• FM RF

Signal generator: 1 kHz, 22.5 kHz dev., FM modulated

Test Stage	Frequency	Frequency Display	Serring/ Adjusting Point	Instrument Connection
FM Band Coverage	—	87.50 MHz	T301(fL): 3.4 V ± 0.1V	*1
FM RF	98.00 MHz (10-30 dB)	98.00 MHz	L312	*2

*1. Input: Antenna, Output: TP301

*2. Input: Antenna, Output: Speaker terminal

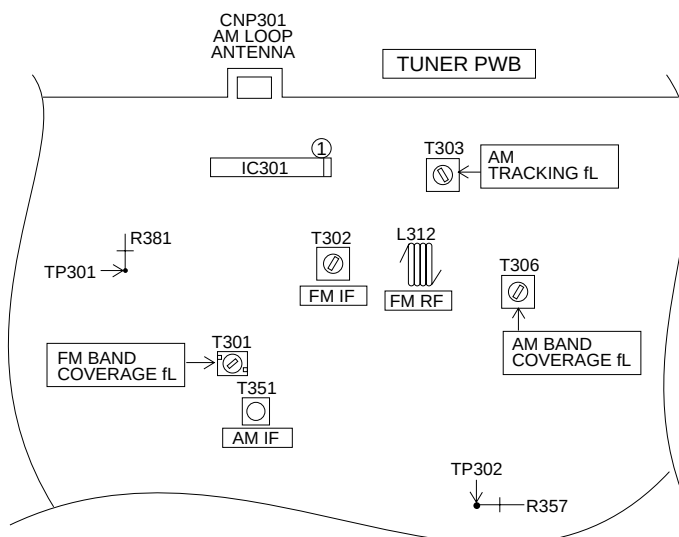


Figure 12-1 ADJUSTMENT POINT

CD SECTION

• Adjustment

Since this CD system incorporates the following automatic adjustment functions, readjustment is not needed when replacing the pickup. Therefore, different PWBs and pickups can be combined freely.

Each time a disc is changed, these adjustments are performed automatically. Therefore, playback of each disc can be performed under optimum conditions.

Items adjusted automatically

- Offset adjustment (The offset voltage between the head amplifier output and the VREF reference voltage is compensated inside the IC.)
 - * Focus offset adjustment
 - * Tracking offset adjustment
- Tracking balance adjustment (waveform drawing 12-2 EFBL)
- Gain adjustment (The gain is compensated inside the IC so that the loop gain at the gain crossover frequency will be 0dB.)
 - * Focus gain adjustment
 - * Tracking gain adjustment

CD ERROR CODE DESCRIPTION

Error	State Code
0001 0002	[Servo System Error] Cannot detect Pickup-in SW DSP access error
0101 0103	[Error during close operation] Open/Close SW Low → High not functioning Open/Close SW High → Low not functioning
0201 0203	[Error during open operation] Open/Close SW Low → High not functioning Open/Close SW High → Low not functioning
0302 0306 0307 0308	[Error during skip operation] Pickup-in SW is not detected During Disc 1 search, Open/Close SW or Clamp SW or Disc SW do not change to low. Clamp SW Low → High not functioning Clamp SW High → Low not functioning

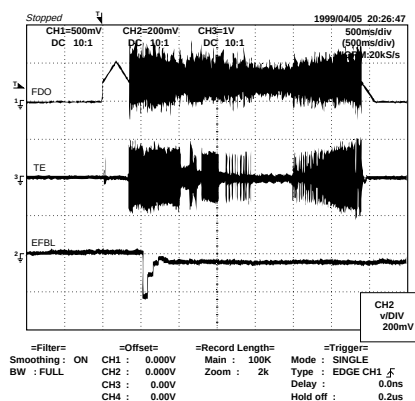


Figure 12-2

NOTES ON SCHEMATIC DIAGRAM

- **Resistor:**
To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.
- **Capacitor:**
To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
(CH), (TH), (RH), (UJ): Temperature compensation
(ML): Mylar type
(P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
 1. In the tuner section,
() indicates AM
< > indicates FM stereo
 2. In the main section, a tape is being played back.
 3. In the deck section, a tape is being played back.
() indicates the record state.
 4. In the power section, a tape is being played back.
 5. In the CD section, the CD is stopped.
- Parts marked with " $\triangle$ " ($\square = \equiv \square$) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
SW1	OPEN/CLOSE	ON—OFF
SW2	CLAMP	ON—OFF
SW3	DISC NUMBER	ON—OFF
SW4	PICKUP IN	ON—OFF
SW701	POWER	ON—OFF
SW702	CLOCK	ON—OFF
SW703	TIMER/SLEEP	ON—OFF
SW709	DISC SKIP	ON—OFF
SW710	OPEN/CLOSE	ON—OFF
SW711	X-BASS/DEMO/EQUALIZER	ON—OFF
SW712	VOLUME UP	ON—OFF
SW713	VOLUME DOWN	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW714	CD	ON—OFF
SW715	TAPE	ON—OFF
SW716	TUNING /TIME DOWN	ON—OFF
SW717	MEMORY/SET	ON—OFF
SW718	REWIND	ON—OFF
SW719	FAST FORWARD	ON—OFF
SW720	PLAY/REPEAT	ON—OFF
SW721	STOP	ON—OFF
SW723	REC/PAUSE	ON—OFF
SW725	TUNING/TIME UP	ON—OFF
SW725	TUNER (BAND)	ON—OFF

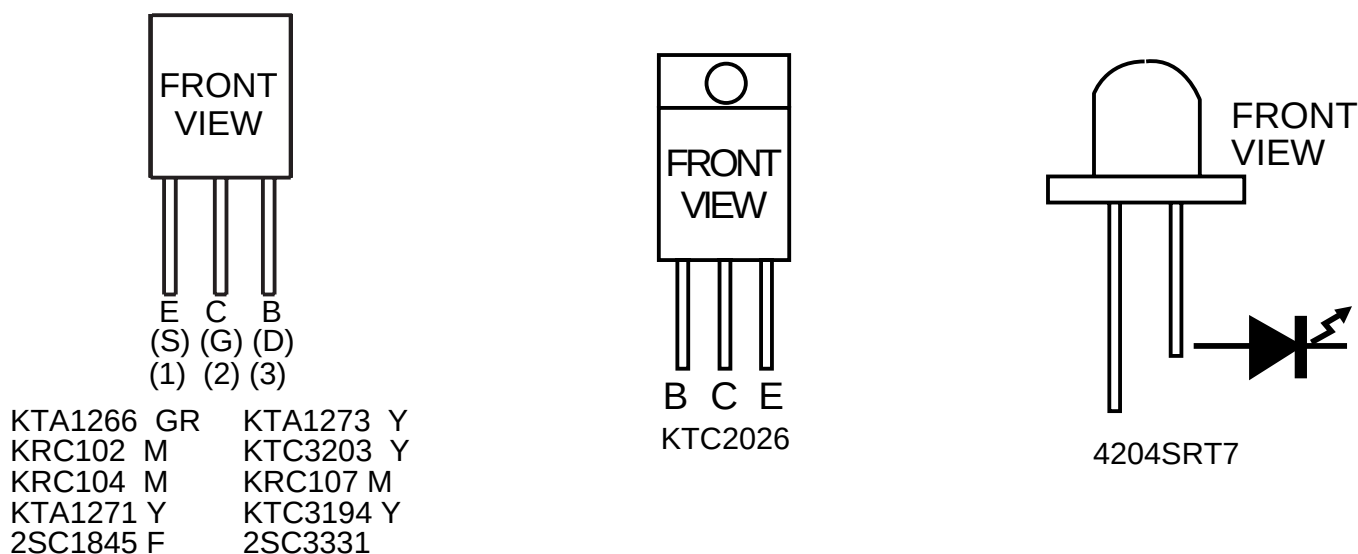
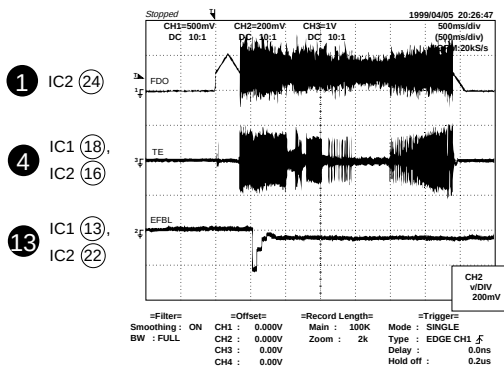
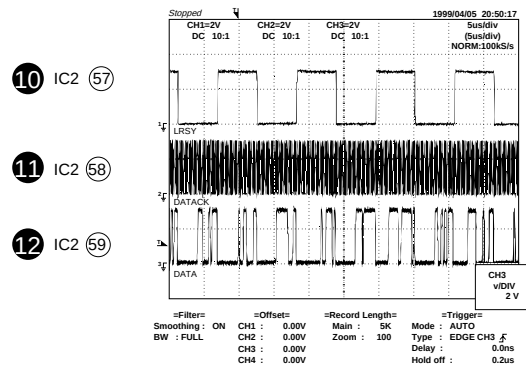
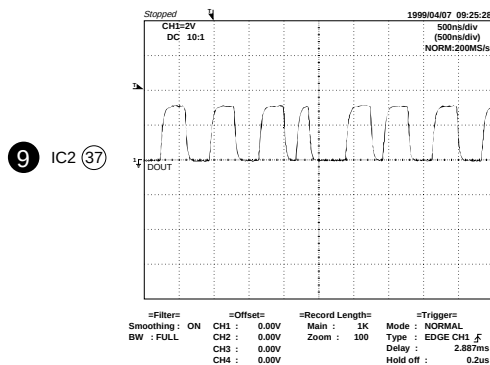
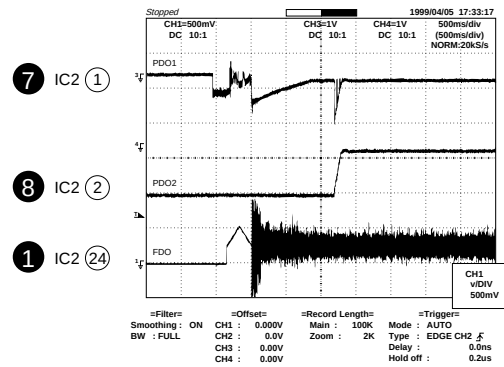
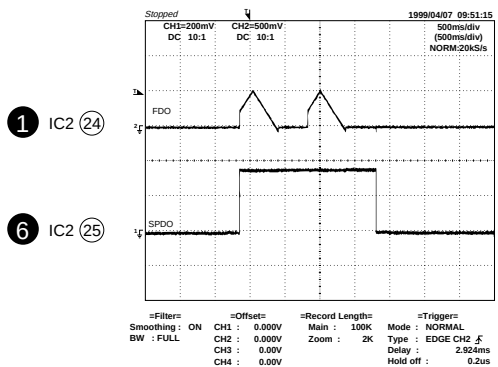
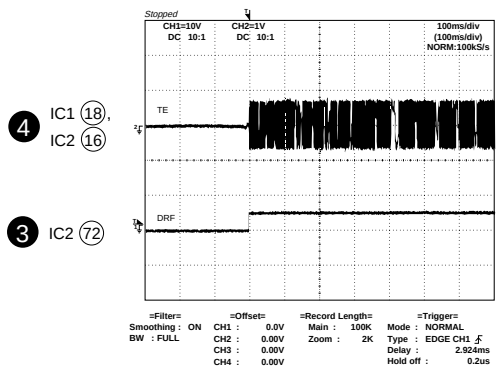
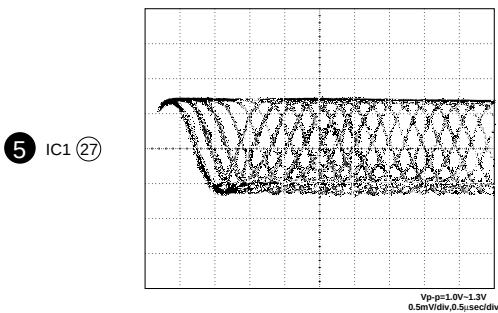
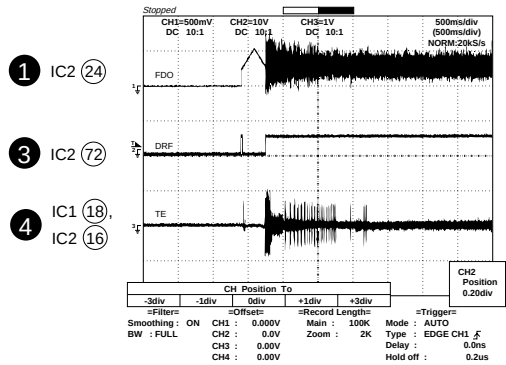
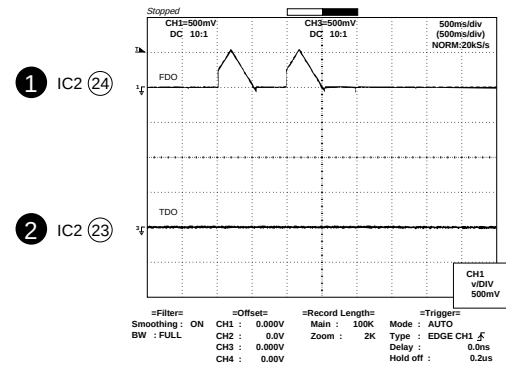


Figure 13 TYPES OF TRANSISTOR AND LED

WAVEFORMS OF CD CIRCUIT



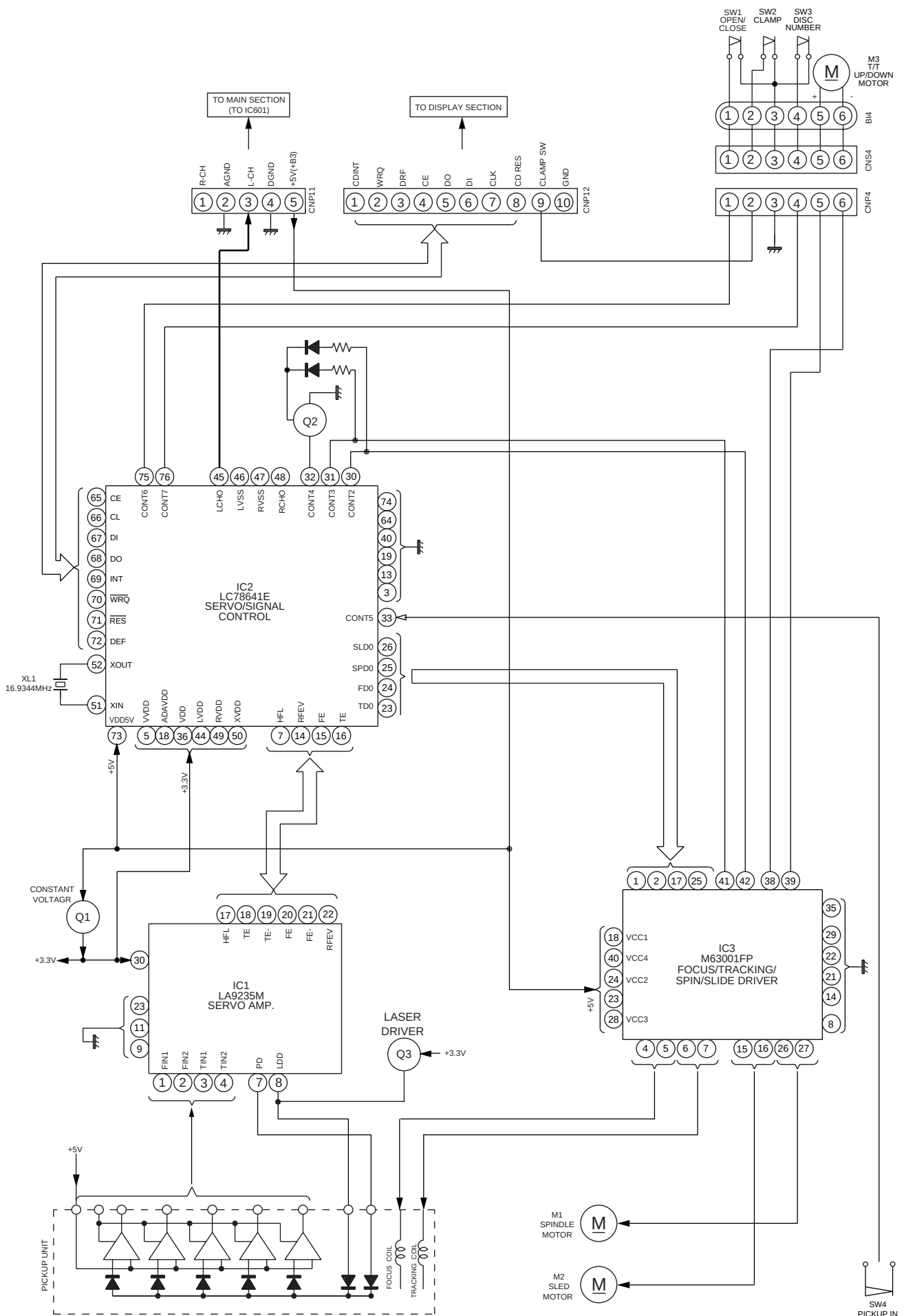


Figure 15 BLOCK DIAGRAM (1/3)

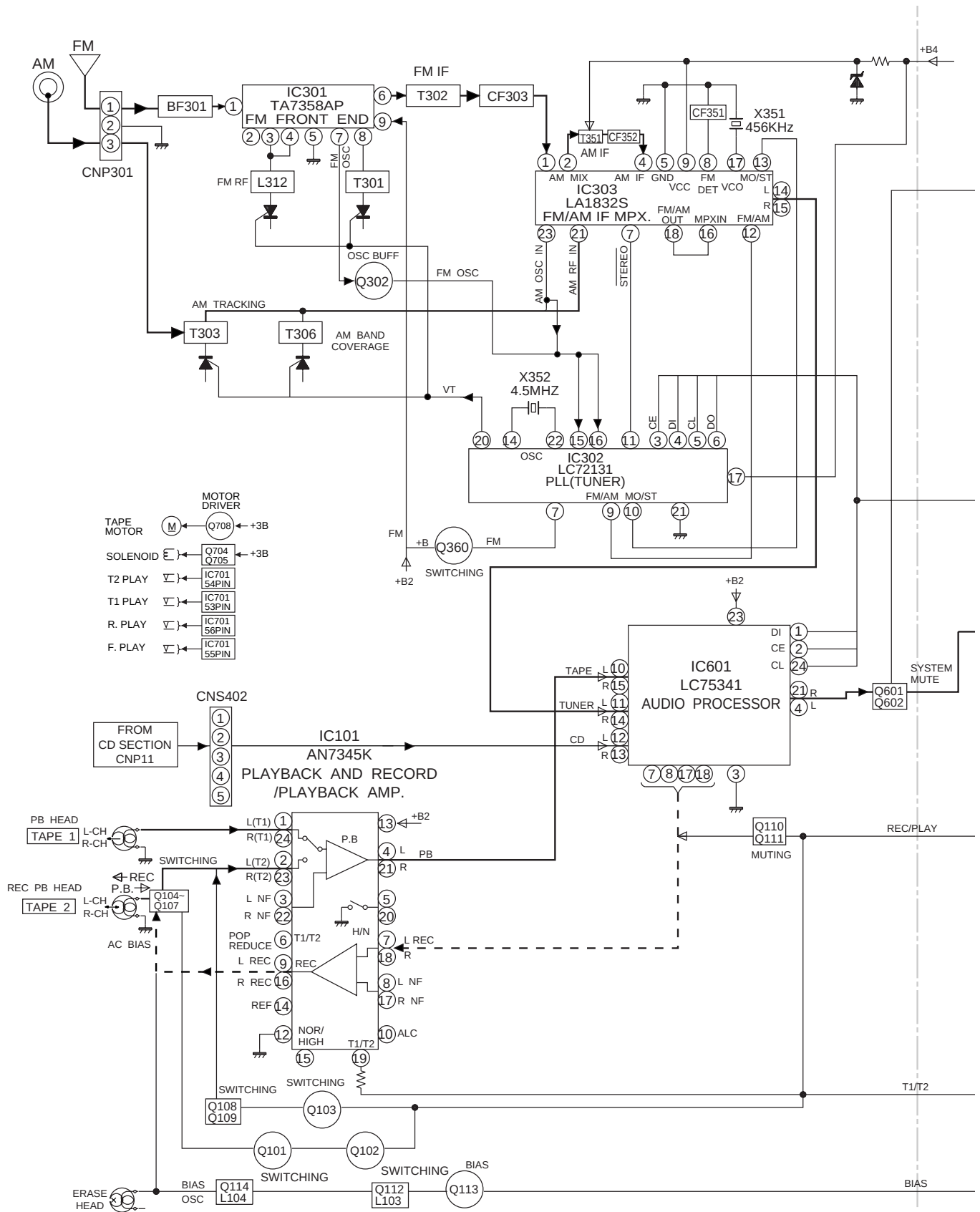


Figure 16 BLOCK DIAGRAM (2/3)

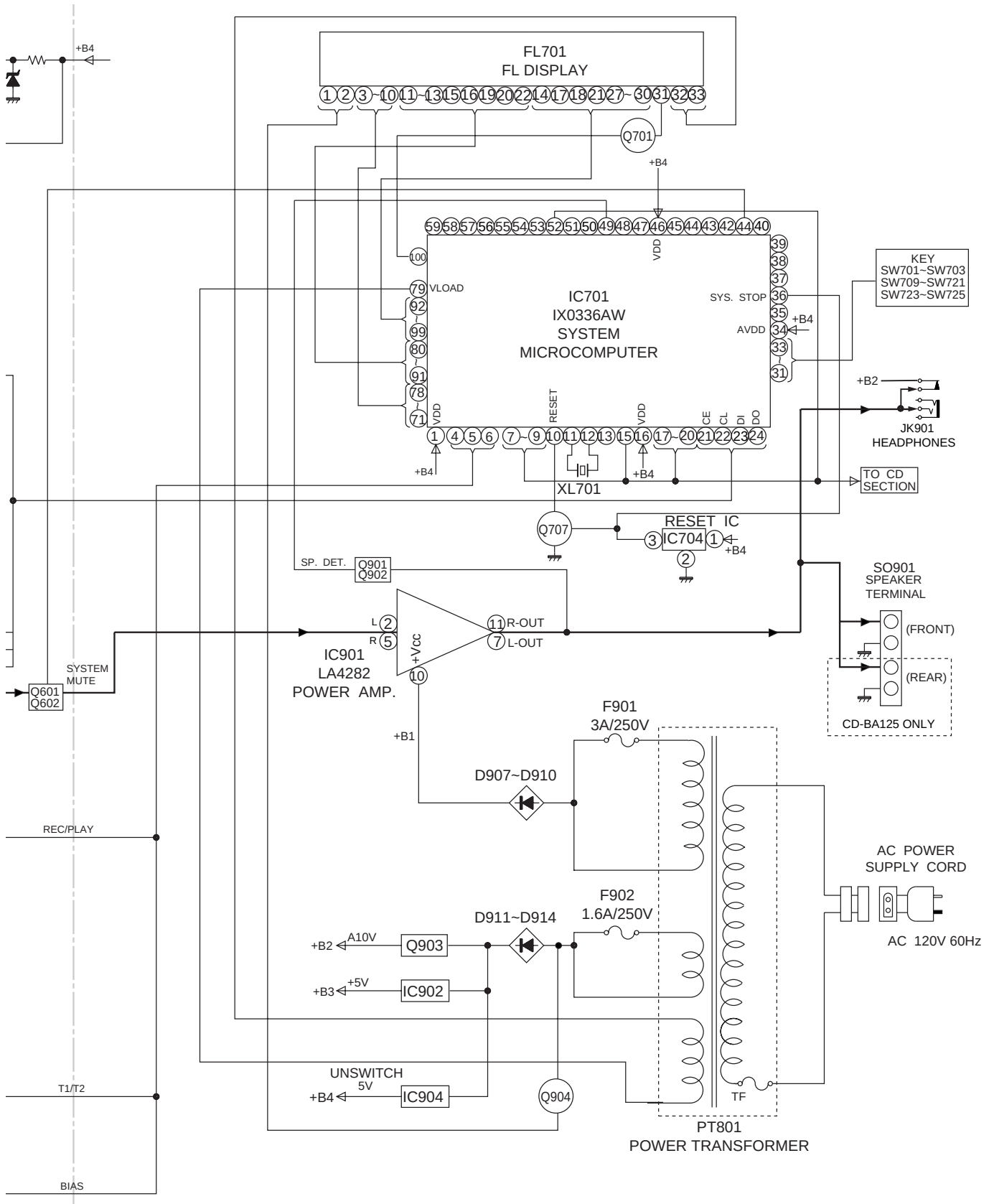
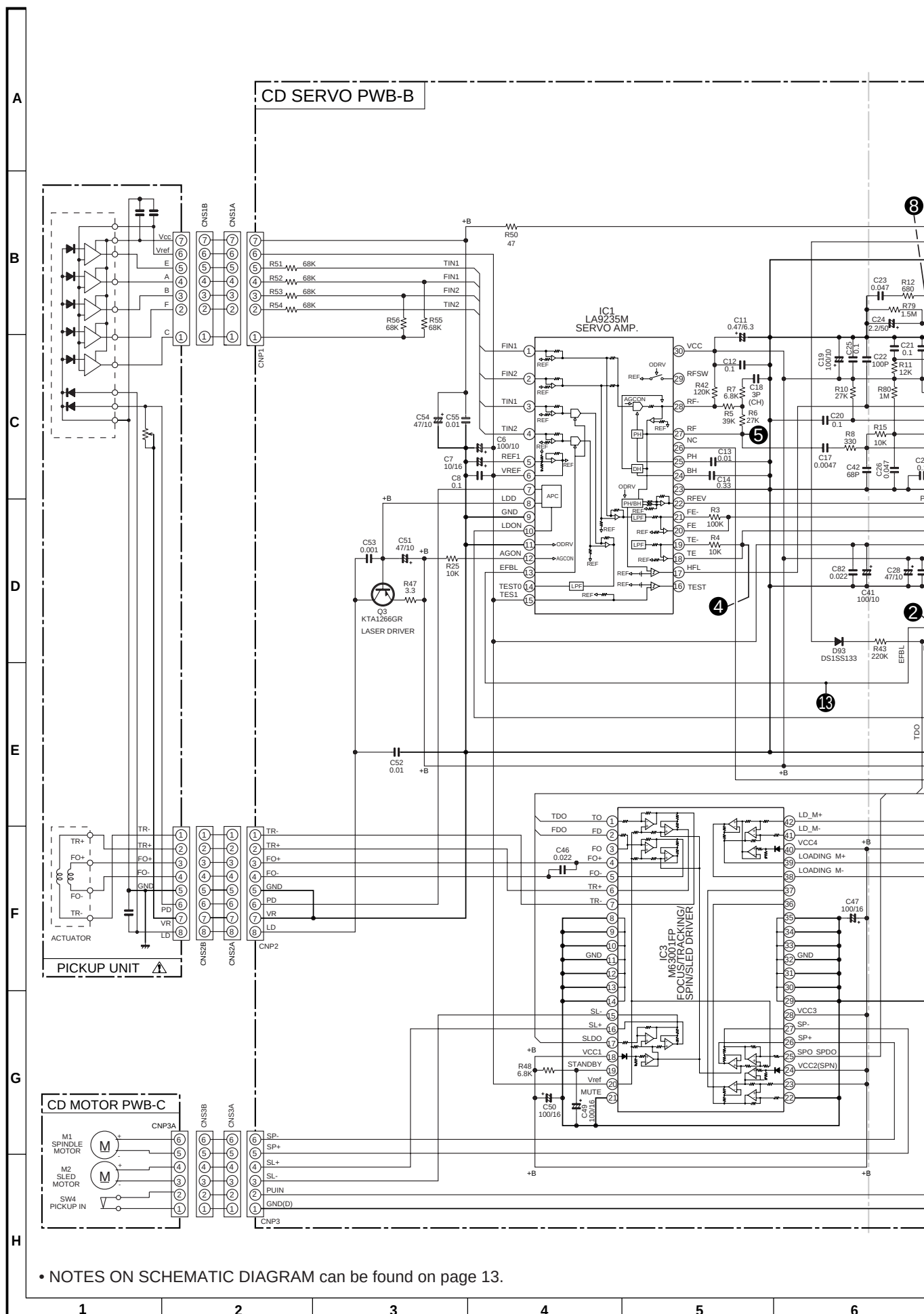
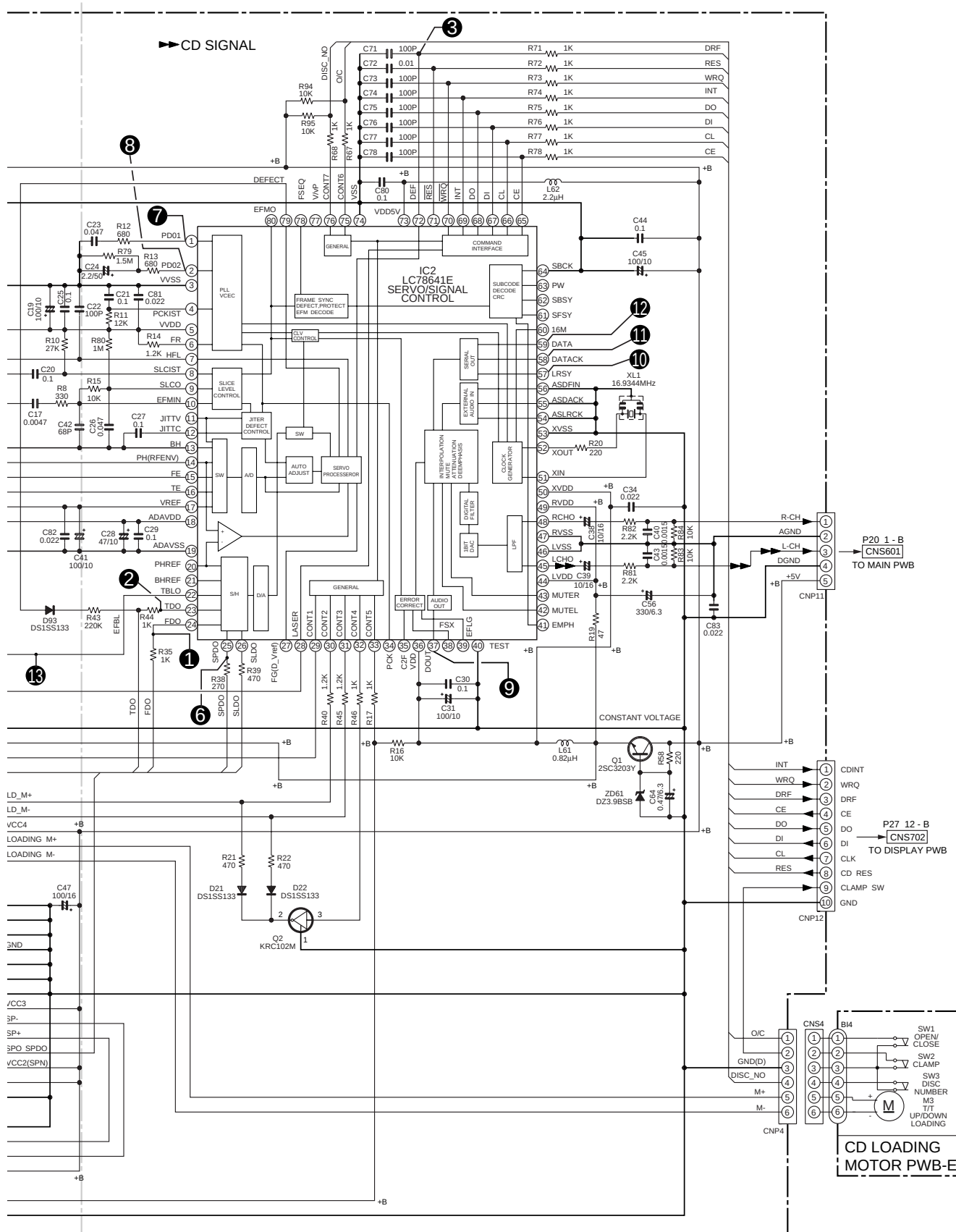


Figure 17 BLOCK DIAGRAM (3/3)





• The numbers ① to ⑬ are waveform numbers shown in page 14.

7	8	9	10	11	12
---	---	---	----	----	----

Figure 19 SCHEMATIC DIAGRAM (2/10)



- 20 -

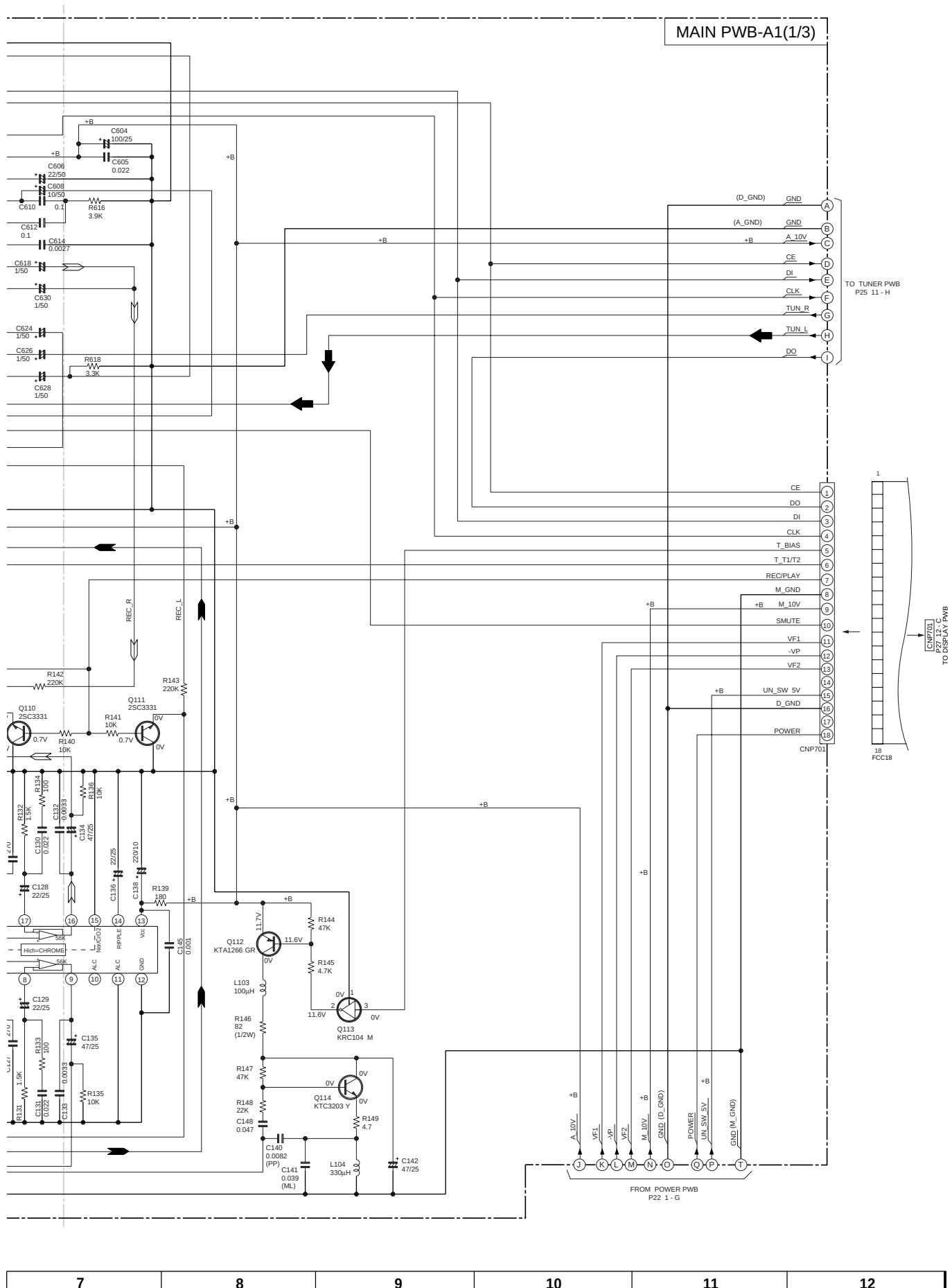


Figure 21 SCHEMATIC DIAGRAM (4/10)

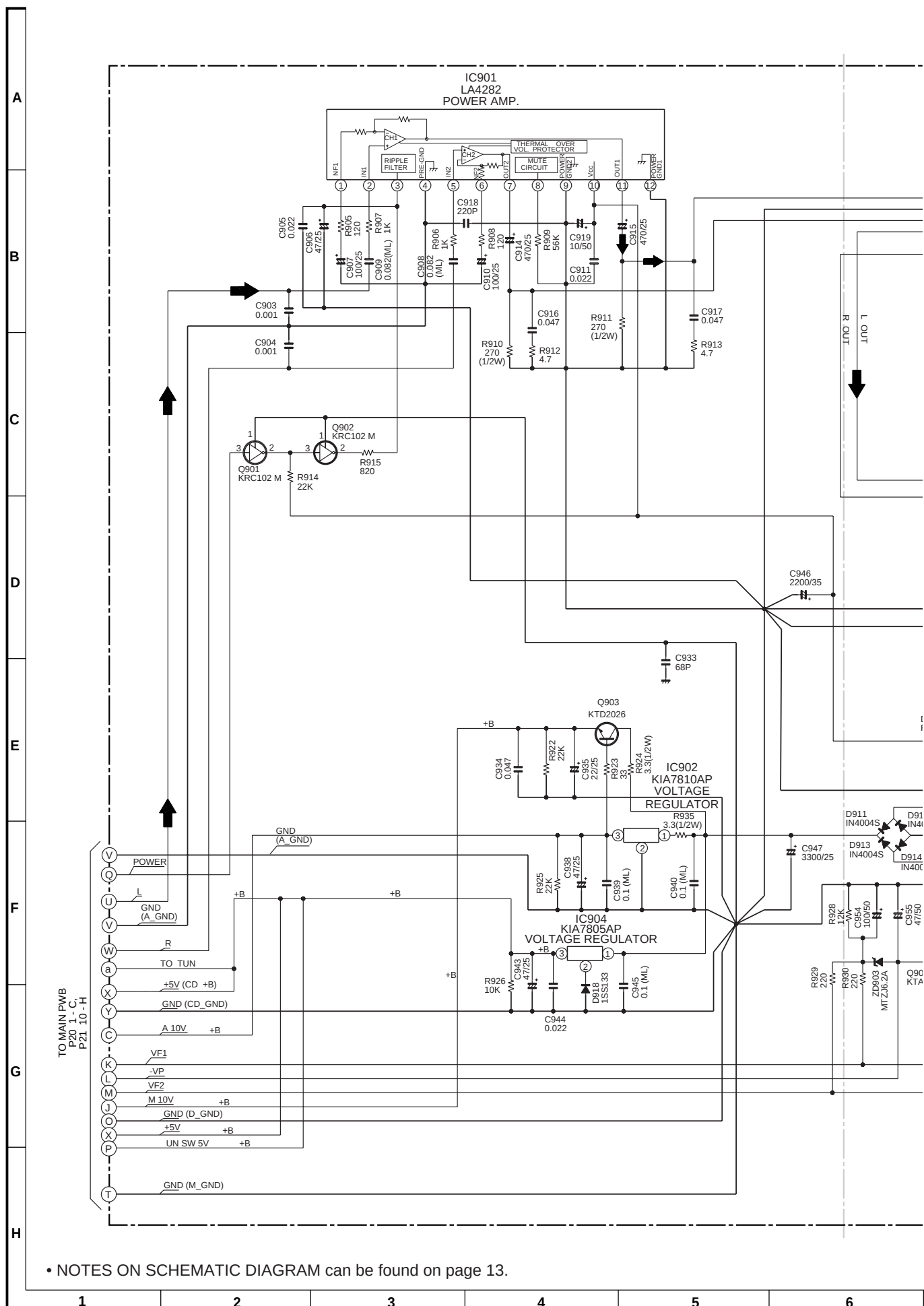


Figure 22 SCHEMATIC DIAGRAM (5/10)

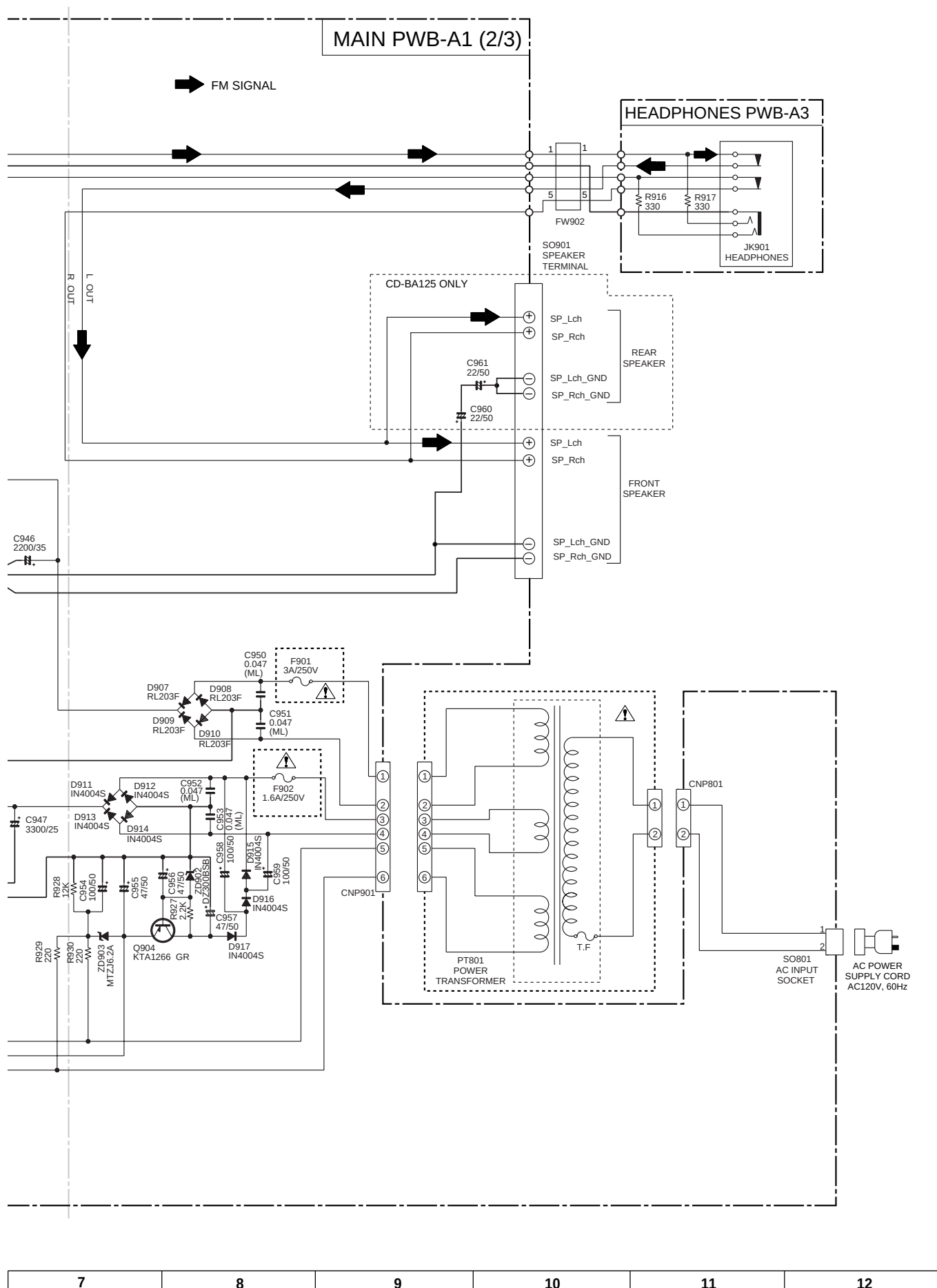


Figure 23 SCHEMATIC DIAGRAM (6/10)

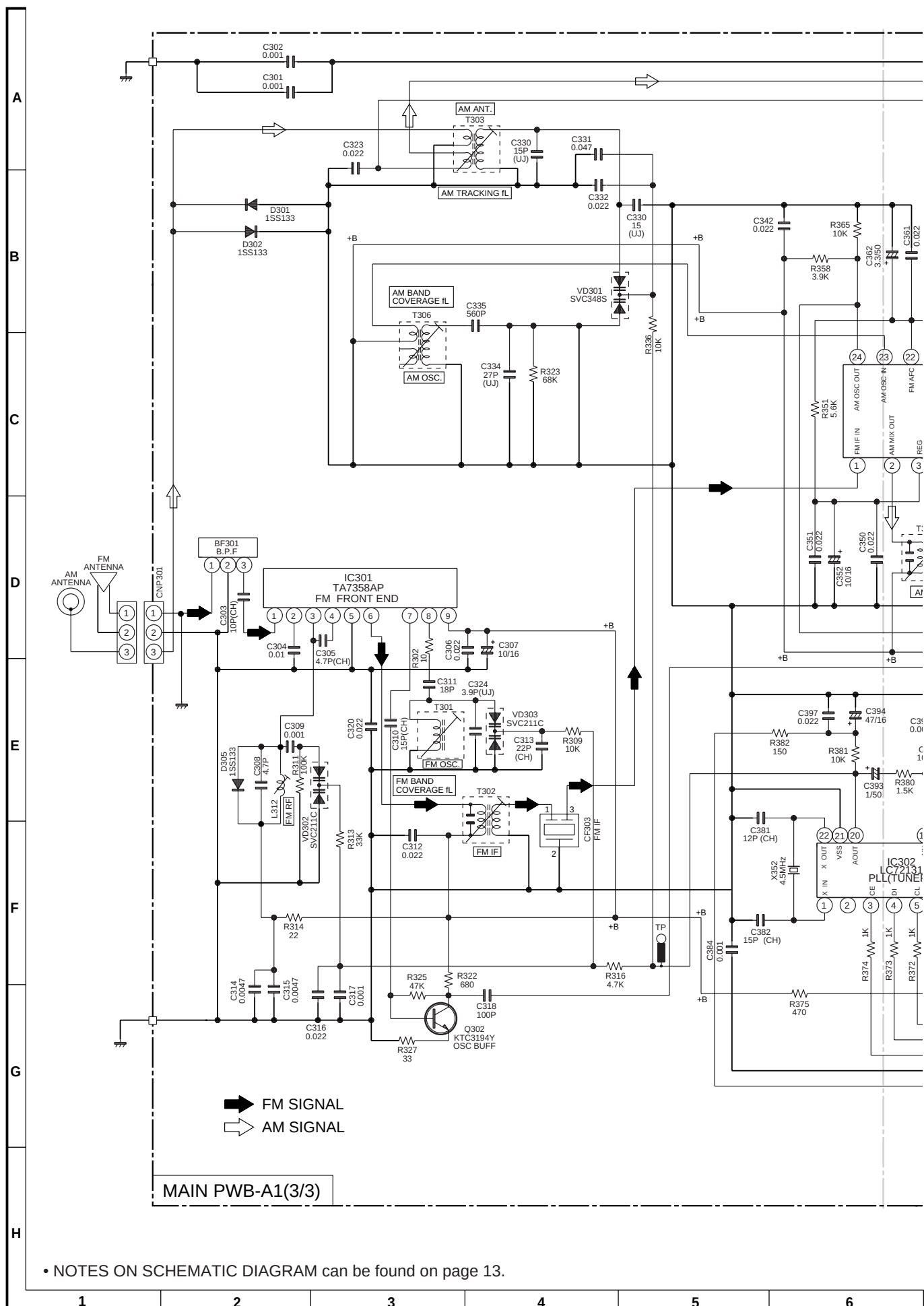


Figure 24 SCHEMATIC DIAGRAM (7/10)

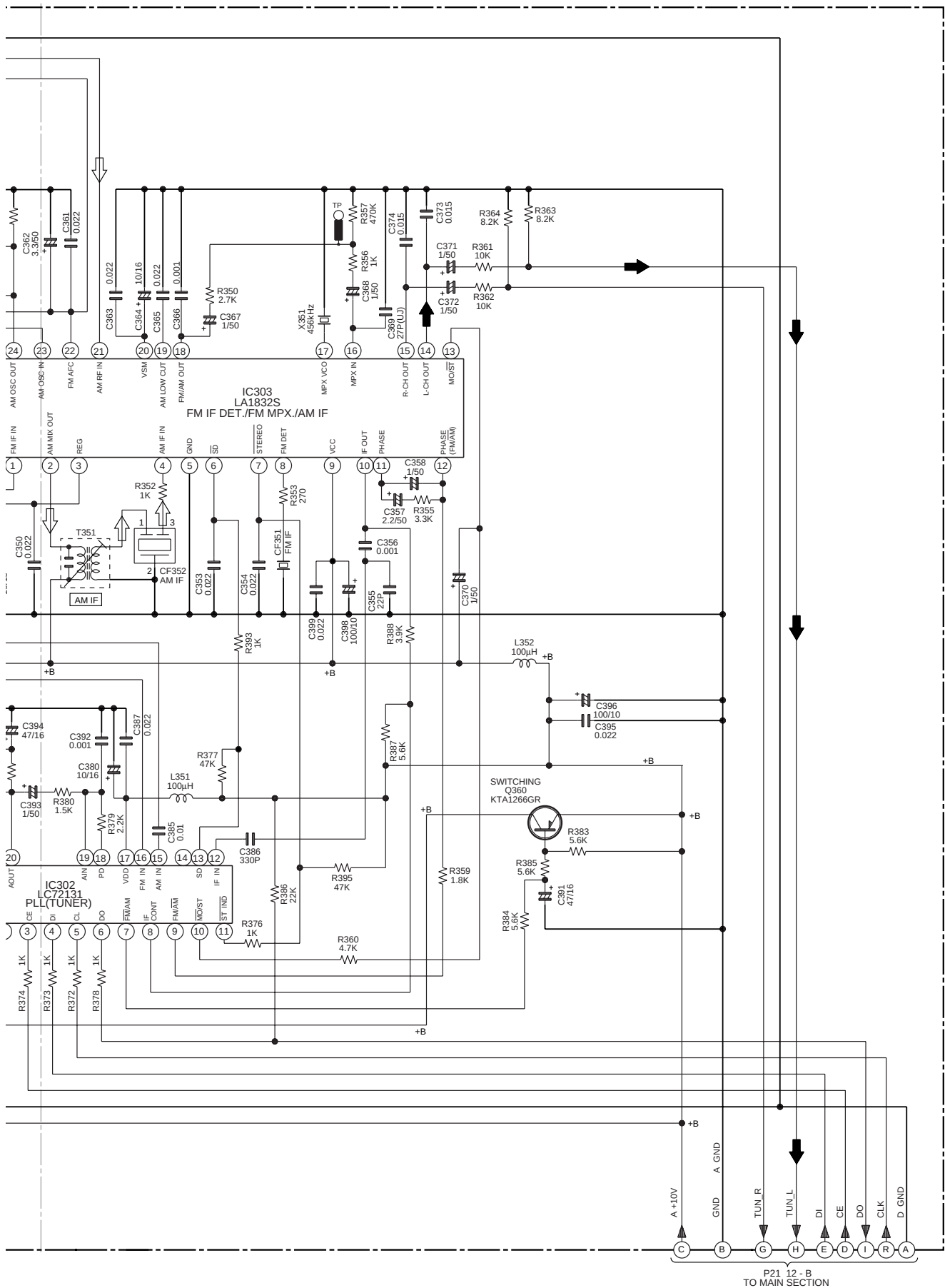


Figure 25 SCHEMATIC DIAGRAM (8/10)



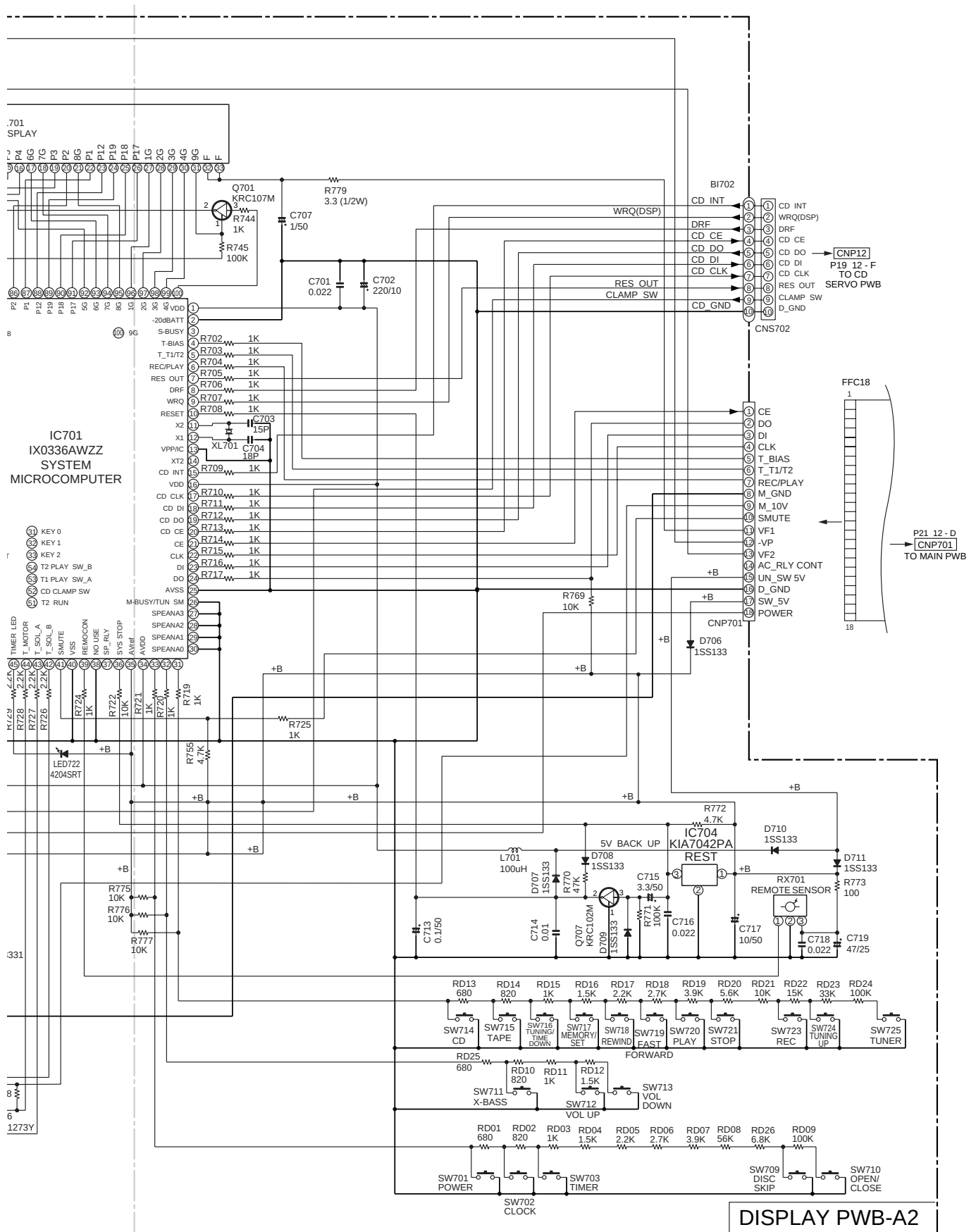


Figure 27 SCHEMATIC DIAGRAM (10/10)

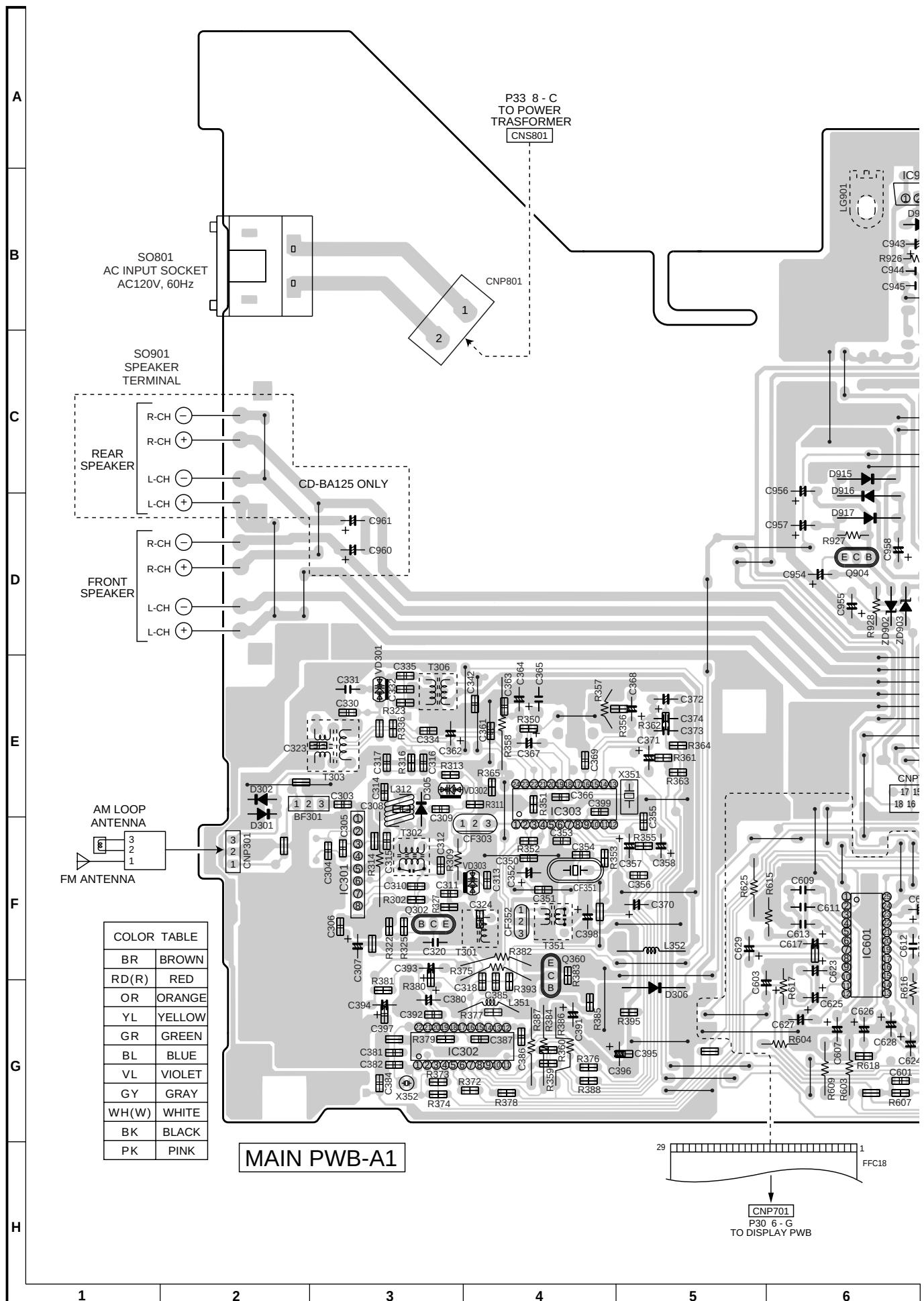


Figure 28 WIRING SIDE OF P.W.BOARD (1/6)

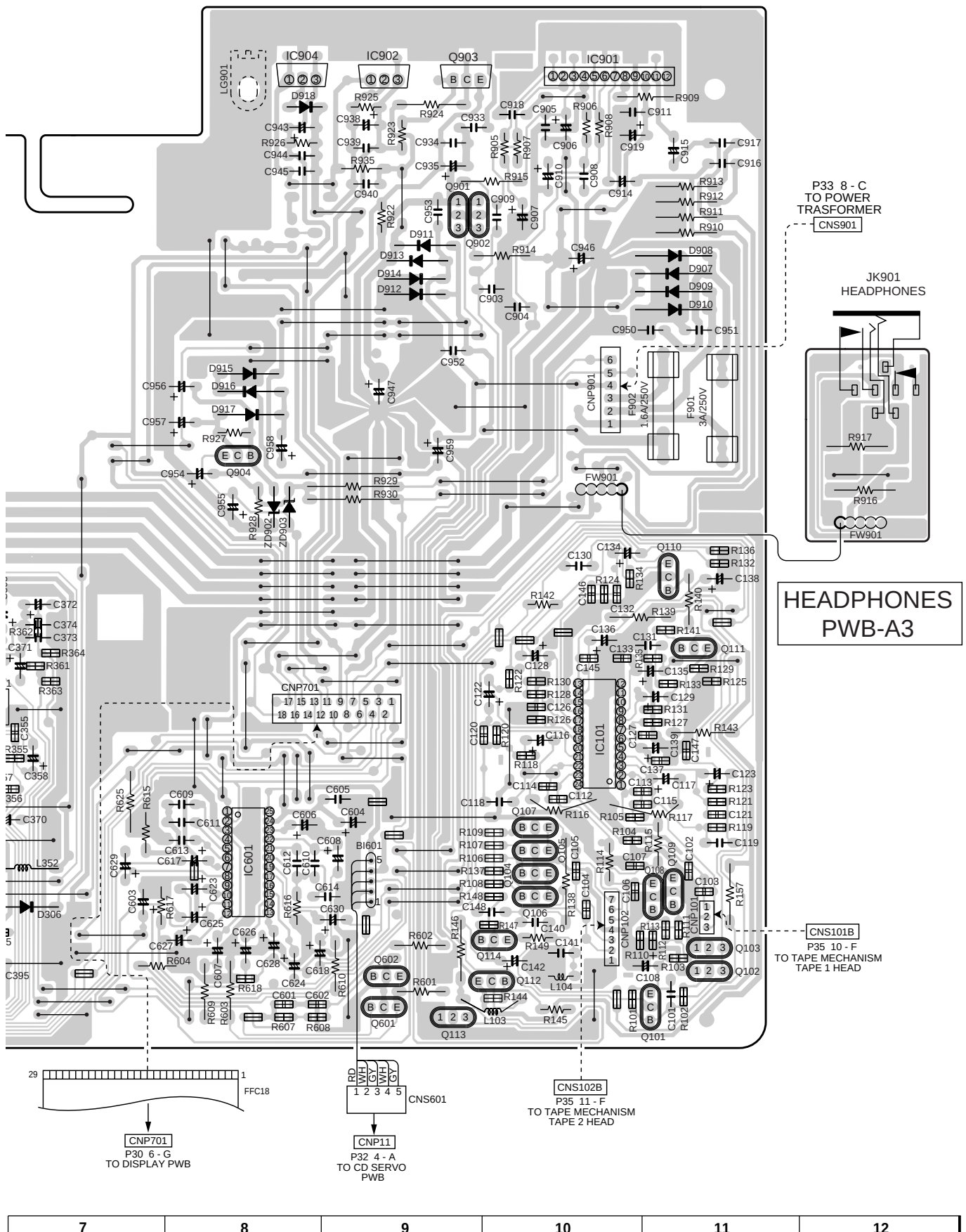


Figure 29 WIRING SIDE OF P.W.BOARD (2/6)

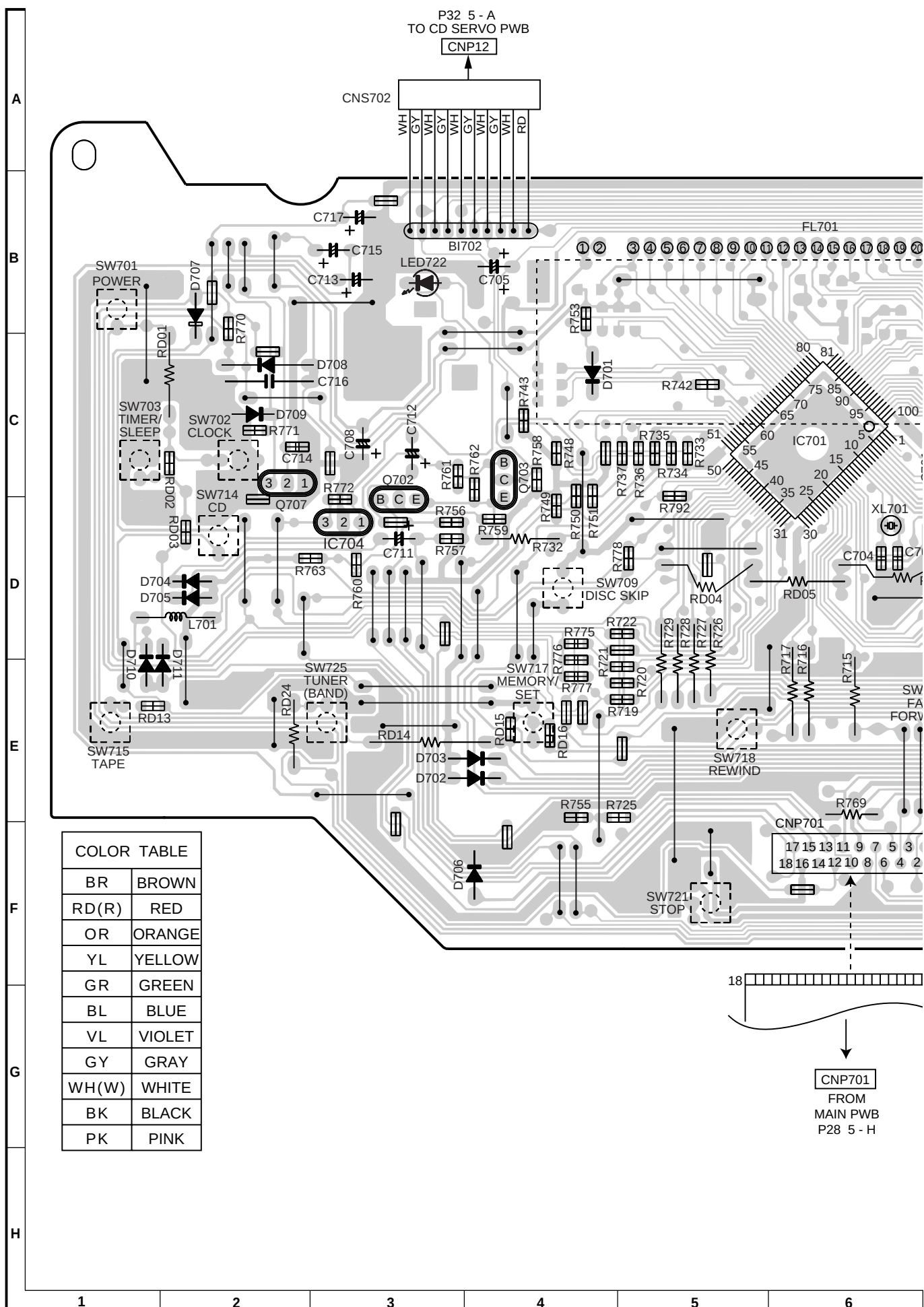


Figure 30 WIRING SIDE OF P.W.BOARD (3/6)

DISPLAY PWB-A2

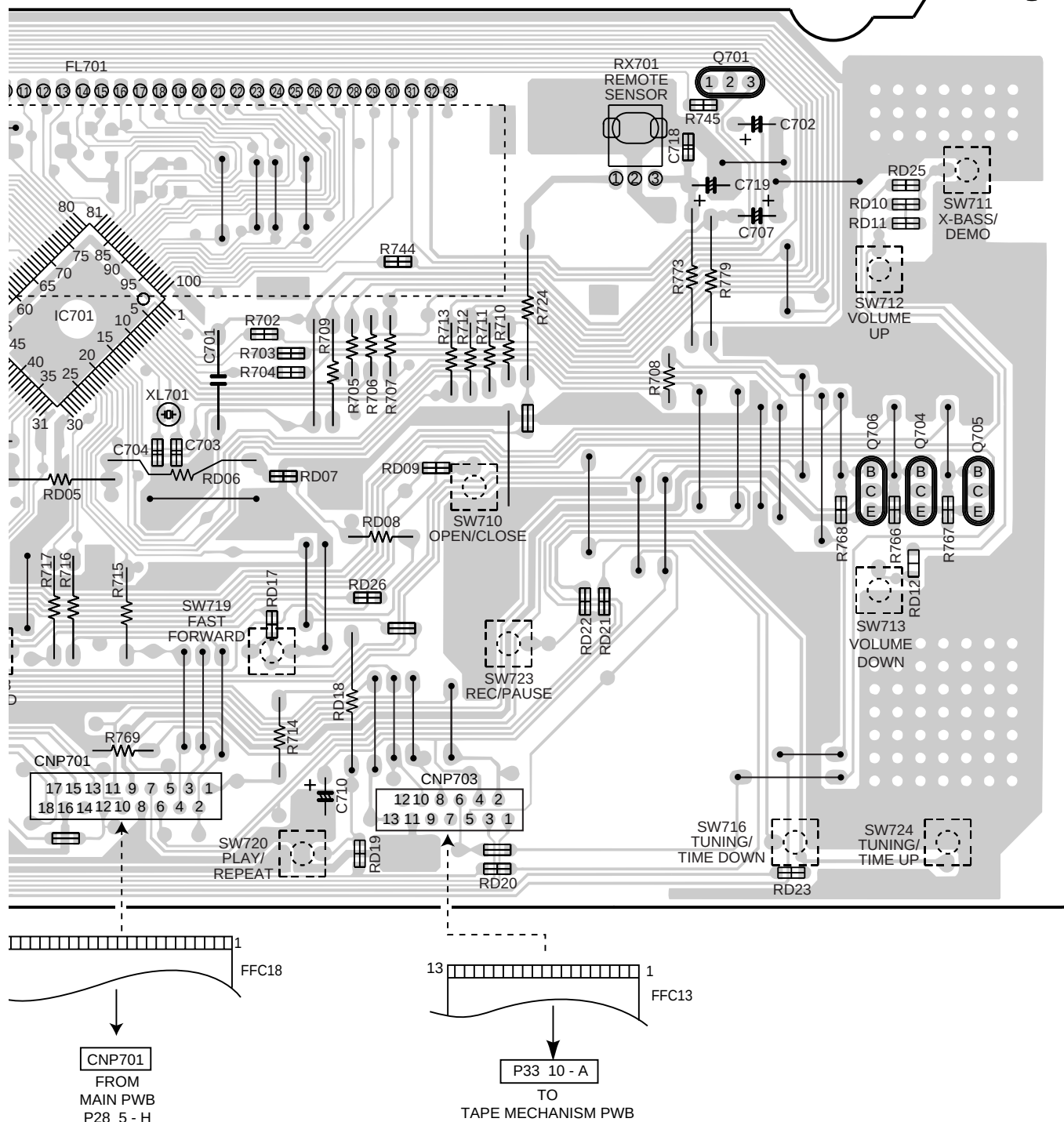


Figure 31 WIRING SIDE OF P.W.BOARD (4/6)

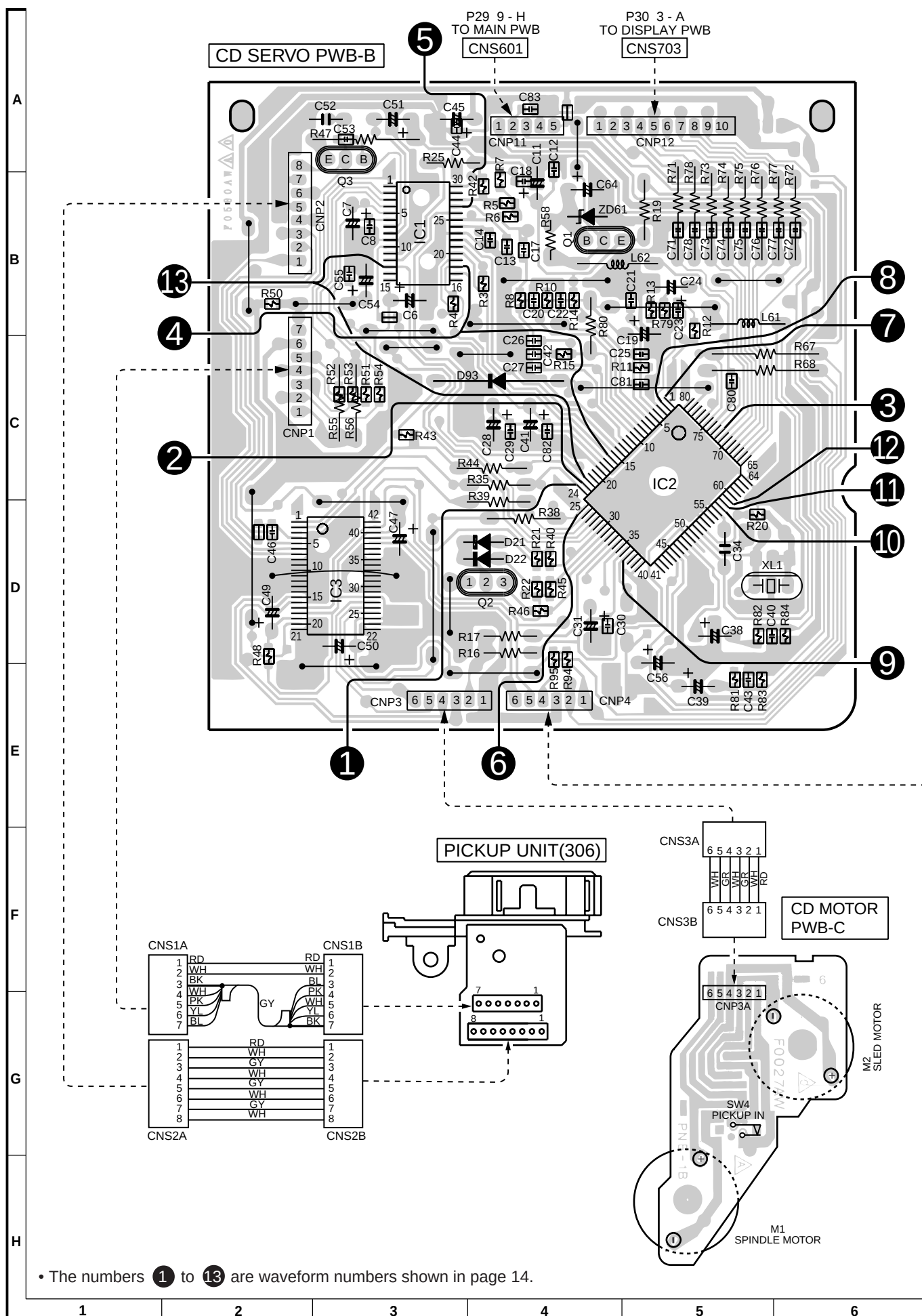


Figure 32 WIRING SIDE OF P.W.BOARD (5/6)

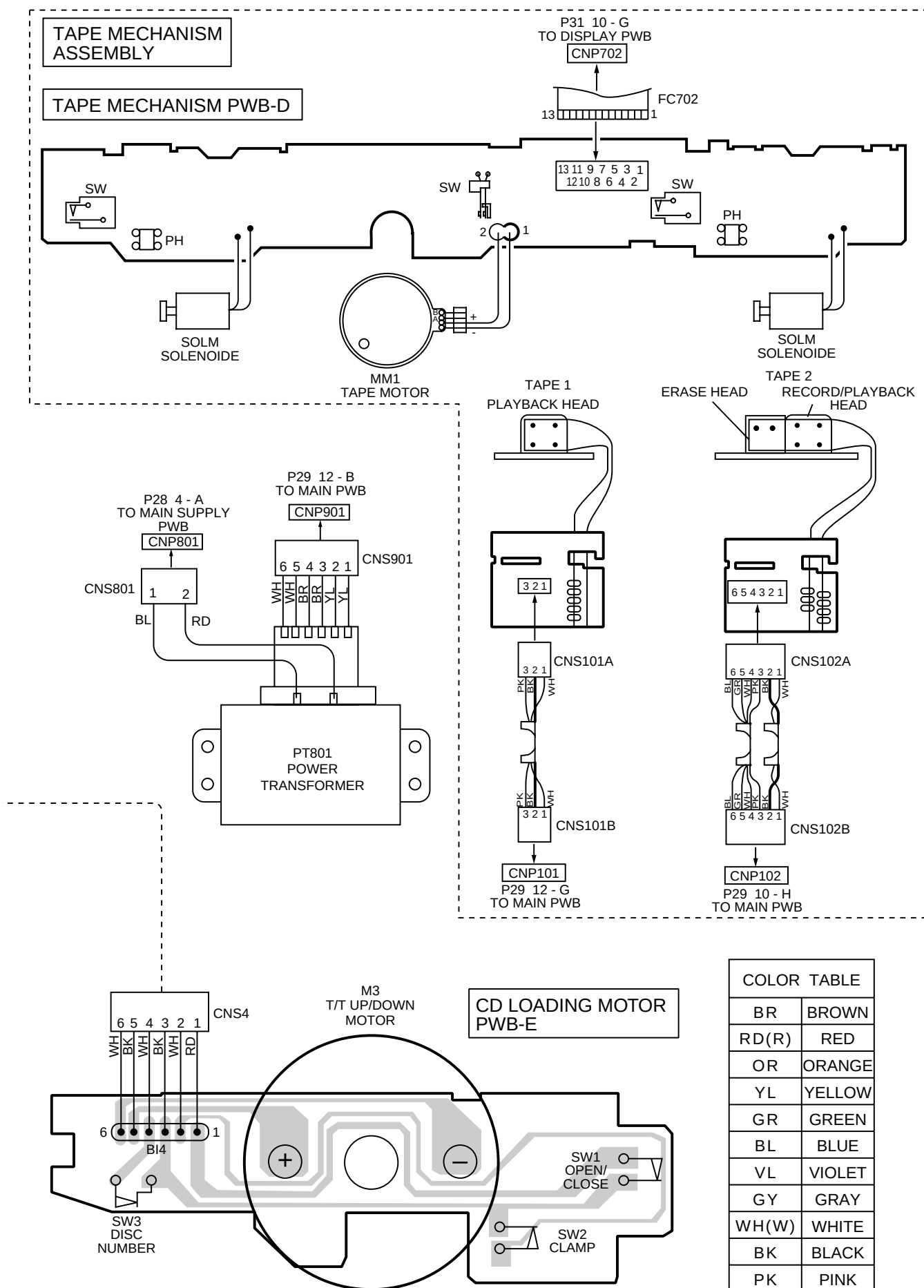


Figure 33 WIRING SIDE OF P.W.BOARD (6/6)

VOLTAGE

IC1	
PIN NO.	VOLTAGE
1	1.6V
2	1.6V
3	1.6V
4	1.6V
5	1.6V
6	1.6V
7	0V
8	2.6V
9	0V
10	0V
11	0V
12	3.3V
13	1.6V
14	1.6V
15	1.6V
16	0V
17	0V
18	1.6V
19	1.6V
20	1.6V
21	1.6V
22	1.6V
23	0V
24	1.6V
25	0V
26	0V
27	0V
28	1.6V
29	1.6V
30	3.3V

IC3	
PIN NO.	VOLTAGE
1	1.6V
2	1.6V
3	1.8V
4	2.1V
5	2.1V
6	2.1V
7	2.1V
8	0V
9	0V
10	0V
11	0V
12	0V
13	0V
14	0V
15	2.1V
16	2.1V
17	1.6V
18	4.9V
19	3.5V
20	1.6V
21	0V
22	0V
23	4.9V
24	4.9V
25	1.6V
26	2.1V
27	2.1V
28	1.9V
29	0V
30	0V
31	0V
32	0V
33	0V
34	0V
35	0V
36	4.2V
37	0V
38	2.1V
39	2.1V
40	4.9V
41	2.1V
42	2.1V

IC2	
PIN NO.	VOLTAGE
1	0.7V
2	0V
3	0V
4	0V
5	3.3V
6	2.4V
7	0V
8	0V
9	1.6V
10	0V
11	4.7V
12	1.7V
13	0V
14	1.6V
15	1.6V
16	1.6V
17	1.6V
18	3.3V
19	0V
20	1.6V
21	1.6V
22	1.6V
23	1.6V
24	1.6V
25	1.6V
26	1.6V
27	1.6V
28	0V
29	0V
30	2.1V
31	2.1V
32	0V
33	3.3V
34	3.5V
35	3.3V
36	3.3V
37	3.3V
38	1.6V
39	1.6V
40	0V
41	0V
42	3.3V
43	3.3V
44	3.0V
45	1.5V
46	0V
47	0V
48	1.5V
49	3.0V
50	3.3V
51	1.8V
52	3.0V
53	0V
54	0V
55	0V
56	0V
57	1.7V
58	3.3V
59	0V
60	3.0V
61	1.6V
62	0V
63	2.4V
64	0V
65	0V
66	0V
67	0V
68	4.8V
69	4.9V
70	4.9V
71	4.6V
72	0V
73	4.9V
74	0V
75	0V
76	0V
77	3.2V
78	0V
79	0V
80	3.4V

IC101	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0.55V
4	2.16V
5	0V
6	1.25V
7	0V
8	0.58V
9	3.17V
10	3.55V
11	0V
12	0V
13	4.72V
14	4.37V
15	0V
16	3.67V
17	0.38V
18	0V
19	0V
20	0V
21	2.16V
22	0.55V
23	0V
24	0V

IC301	
PIN NO.	VOLTAGE
1	0.8V (0V)
2	1.5V (0V)
3	3.6V (0.4V)
4	1.5V (0V)
5	0V (0V)
6	3.6V (0.4V)
7	2.8V (0.2V)
8	3.5V (0.3V)
9	3.6V (0.3V)

IC302	
PIN NO.	VOLTAGE
1	2.15V
2	0V
3	0V
4	0V
5	0V
6	4.83V
7	9.87V
8	4.4V
9	0V
10	0V
11	4.64V
12	2.27V
13	4.66V
14	0V
15	2.13V
16	0V
17	4.86V
18	0.73V
19	0.73V
20	6.3V
21	0V
22	2.33V

IC901	
PIN NO.	VOLTAGE
1	0V
2	0V
3	16.27V
4	0V
5	0V
6	0V
7	16.72V
8	0V
9	0V
10	34.2V
11	16.6V
12	0V

IC902	
PIN NO.	VOLTAGE
1	19.12V
2	0V
3	10.04V

IC904	
PIN NO.	VOLTAGE
1	19.12V
2	0.64V
3	5.64V

Q903	
PIN NO.	VOLTAGE
1	10.04V
2	19.05V
3	9.57V

IC704	
PIN NO.	VOLTAGE
1	4.9V
2	0V
3	4.9V

IC601	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	4.96V
5	4.96V
6	4.96V
7	4.96V
8	4.89V
9	4.78V
10	4.78V
11	4.78V
12	4.78V
13	4.78V
14	4.78V
15	4.78V
16	4.78V
17	5.1V
18	5.5V
19	5.0V
20	4.66V
21	5.03V
22	4.97V
23	10.0V
24	0V

IC701			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	4.78V	51	4.29V
2	0V	52	0V
3	5.0V	53	4.81V
4	0V	54	4.81V
5	4.69V	55	4.81V
6	4.74V	56	4.81V
7	4.75V	57	0V
8	0V	58	0V
9	4.85V	59	27.8V
10	4.30V	60	-27.8V
11	2.25V	61	0V
12	1.16V	62	0V
13	0V	63	0V
14	0V	64	0V
15	4.85V	65	0V
16	4.78V	66	0V
17	4.67V	67	-27.7V
18	0V	68	-27.7V
19	4.69V	69	-27.1V
20	0V	70	-28.2V
21	0V	71	-21.7V
22	0V	72	-18.6V
23	0V	73	-12.9V
24	4.82V	74	-24.4V
25	0V	75	-25.9V
26	0.3V	76	-15.7V
27	0V	77	-22.2V
28	0V	78	-22.3V
29	0V	79	-27.8V
30	0V	80	-18.6V
31	4.81V	81	-12.9V
32	4.81V	82	-24.4V
33	4.81V	83	-24.4V
34	4.9V	84	-27.1V
35	5.0V	85	-27.1V
36	4.9V	86	-24.4V
37	0V	87	-24.4V
38	0V	88	-27.1V
39	5.0V	89	-27.1V
40	0V	90	-24.4V
41	1.7V	91	-27.1V
42	9.45V	92	-24.4V
43	9.45V	93	-27.1V
44	9.45V	94	-24.4V
45	3.8V	95	-24.4V
46	4.89V	96	-24.4V
47	0V	97	-24.4V
48	4.89V	98	-24.4V
49	4.79V	99	-24.4V
50	4.78V	100	-24.4V

IC303	
PIN NO.	VOLTAGE
1	2.12V
2	4.78V
3	2.12V
4	2.11V
5	0V
6	4.65V
7	4.65V
8	3.02V
9	4.78V
10	4.08V
11	1.63V
12	1.13V
13	2.08V
14	1.31V
15	1.29V
16	2.07V
17	0V
18	1.43V
19	1.99V
20	1.44V
21	2.08V
22	2.08V
23	4.48V
24	3.35V

TROUBLE SHOOTING

When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.

Remove the cabinet and follow the trouble shooting instructions.

"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.

Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Do not touch the lens with the bare hand.

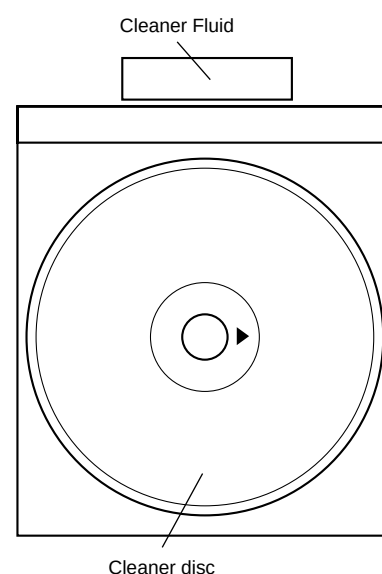
		Parts code
1.	CD optical pickup Lens cleaner disc	UDSKA0004AFZZ

HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continuous to tum, press the stop button.

CAUTION

- The CD lens cleaner should be effective for 30-50 operations, however if the brushes become worn out earlier then please the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rines with clean water and seek medical advice.
- The CD cleaner disk must not be used on car CD players or on computer CD ROM drives.
- All rights reserved.Unauthorized duplicating, broadcasting and renting this product is



When a CD cannot be played

1. "E-CD01" is displayed.

- (1) Check the power to IC2 (LC78641E), the presence of the clock signal (16.93 MHz) and the status of the RESET terminal (pin 71 on IC2).
- (2) Did the pickup move to the PICKUP-IN Switch (SW4) position?

If (1) and (2) are OK, check the system microcomputer (especially the communication line with the DSP).

2. Pressing the CD operation key is accepted, but playback does not occur.

- (1) Focus-HF system check
- (2) Tracking system check
- (3) Spin system check
- (4) PLL system check
- (5) Others

(1) Focus-HF system check

Although a CD is inserted and the cover is closed, "NO DISC" is displayed.

Press the OPEN/CLOSE switch (SW1) without inserting a disc, and try starting the playback operation.

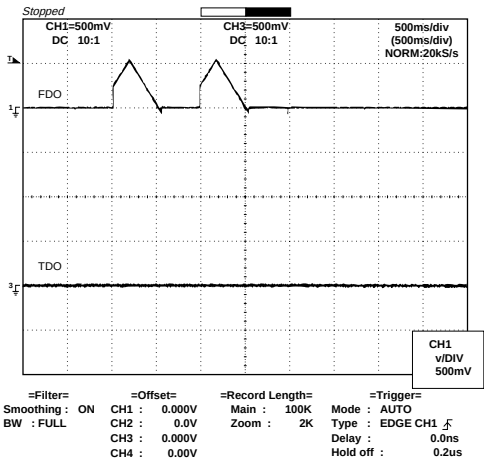


Figure 36-1

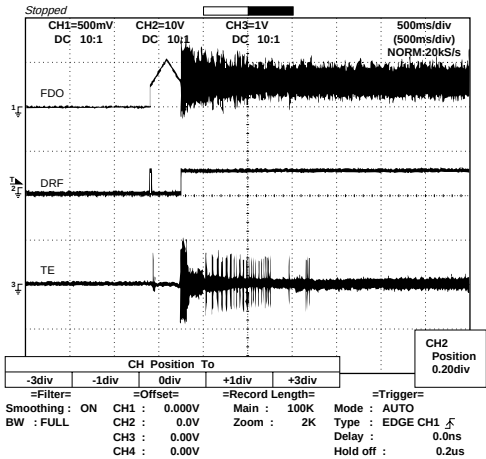
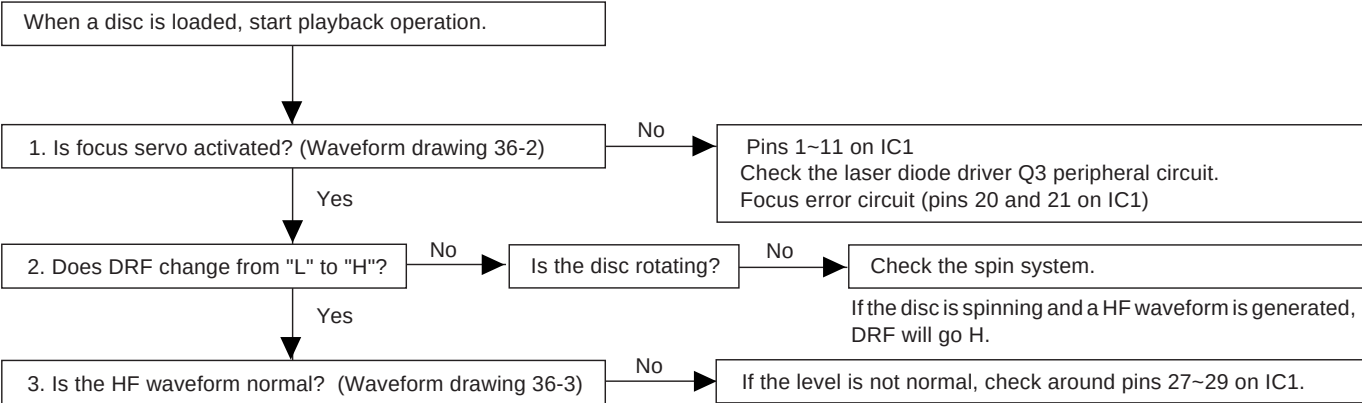
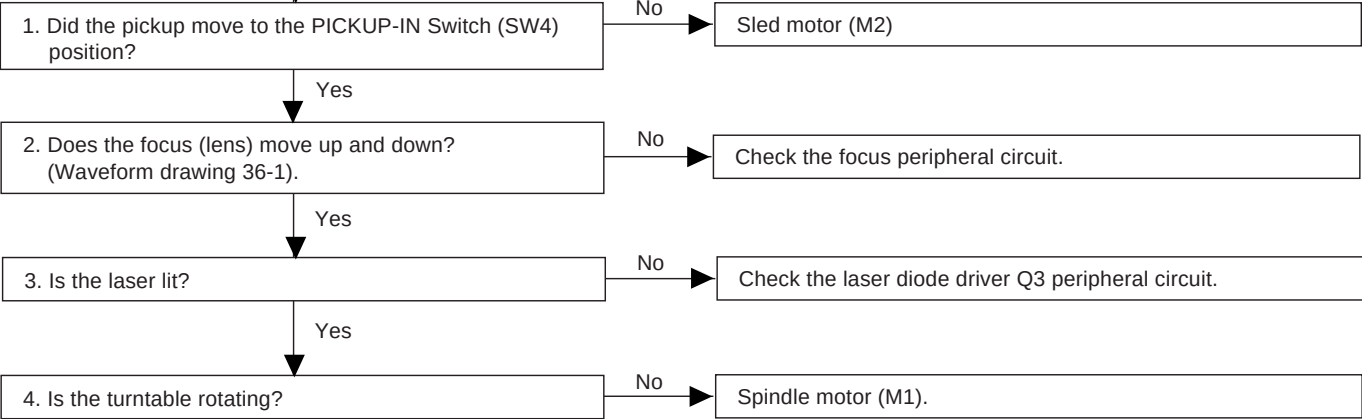


Figure 36-2

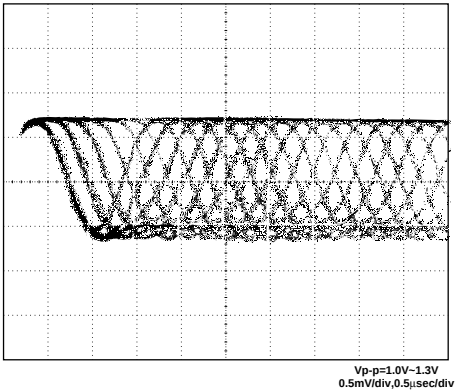


Figure 36-3

(2) Tracking system check

Check the TE waveform at pin 18 on IC1.

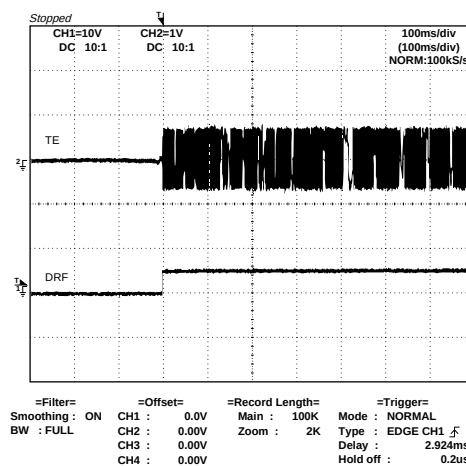
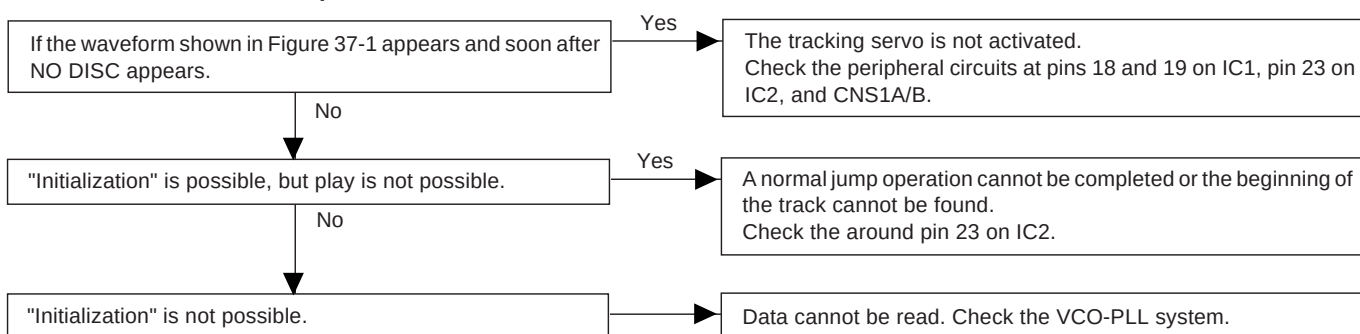


Figure 37-1

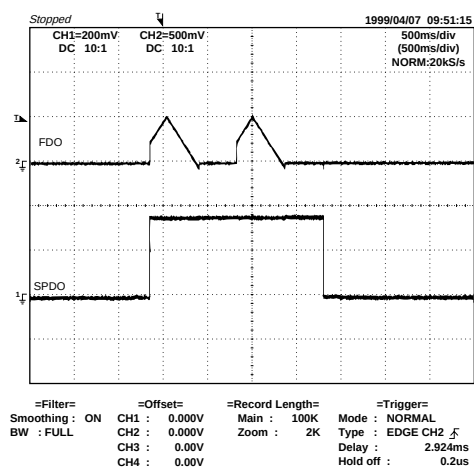
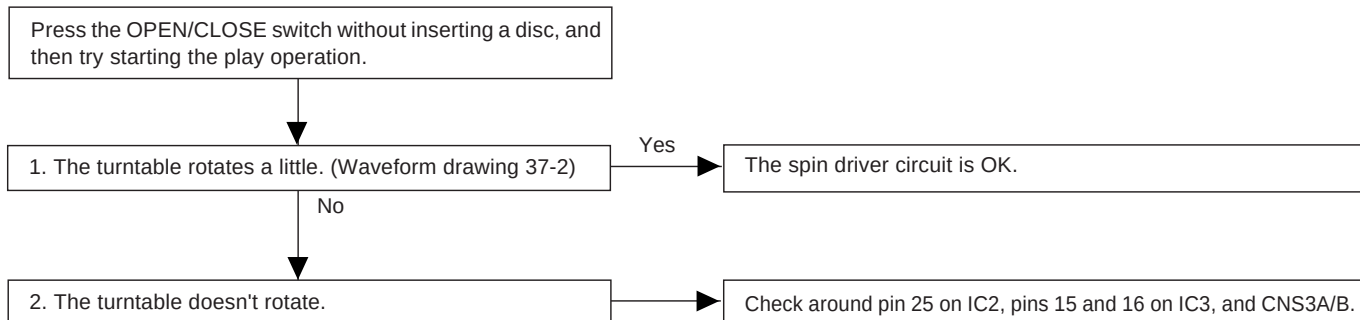
(3) Spin system check

Figure 37-2

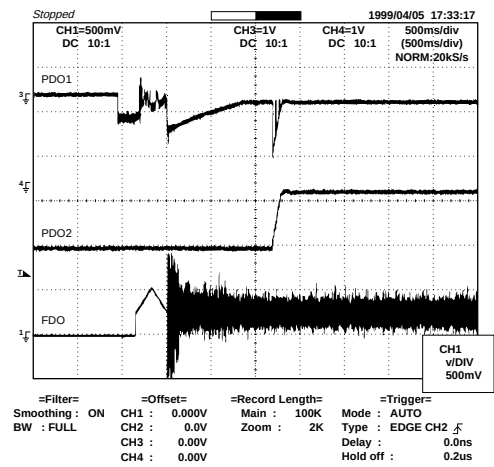
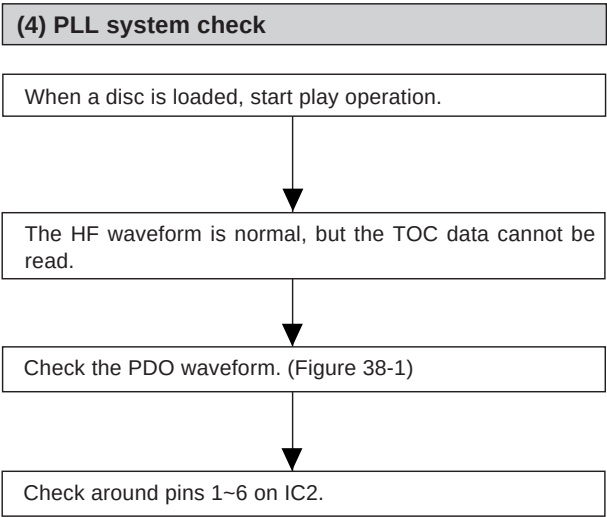


Figure 38-1

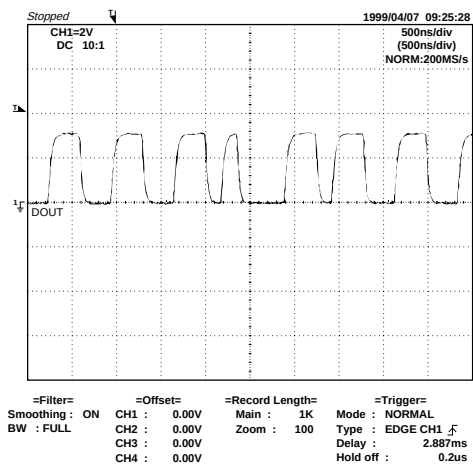
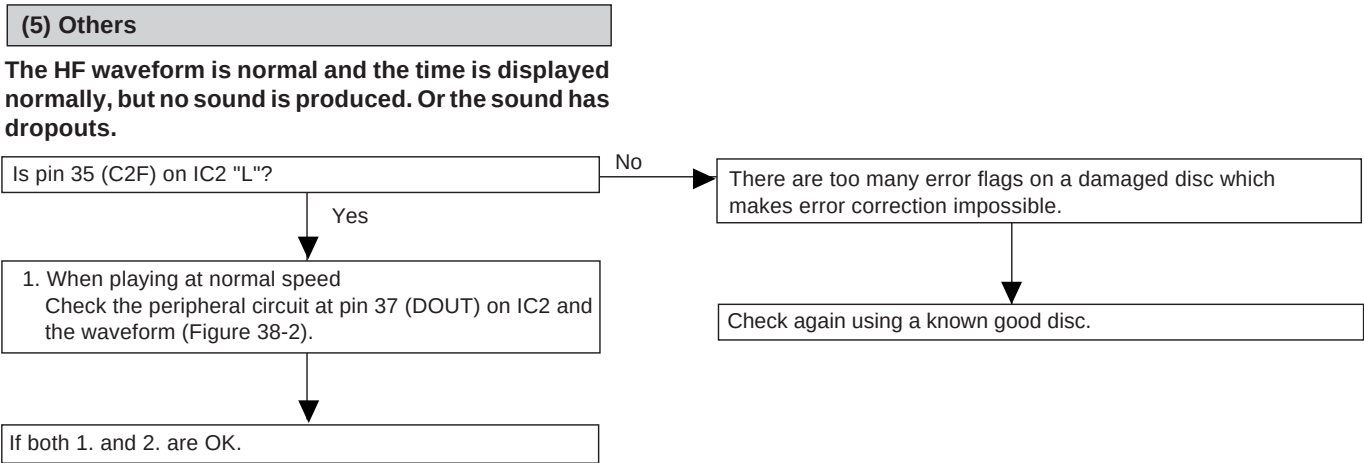
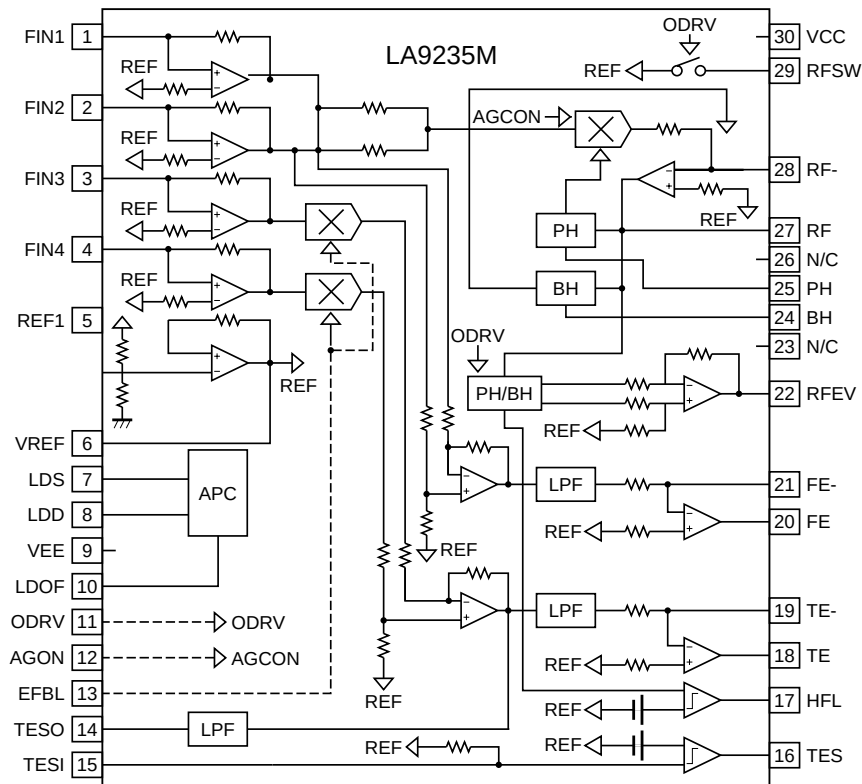


Figure 38-2

FUNCTION TABLE OF IC

IC1 VHiLA9235M/-1: Servo Amp. (LA9235M)



IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E)

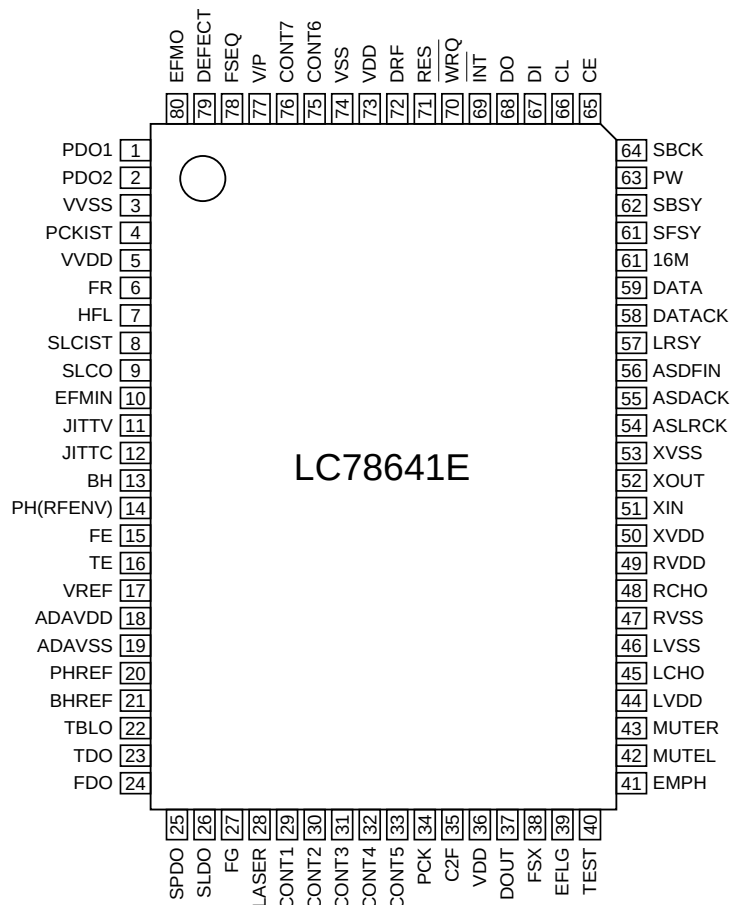


Figure 39 BLOCK DIAGRAM OF IC

IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E) (1/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
1	PDO1	Output	—	For PULL	Phase-comparison output terminal for built-in VOC control.
2	PDO2	Output	—		Phase-comparison output terminal for built-in VOC control. Rough servo : OFF, phase servo : ON.
3	VVSS	—	—		Ground terminal for built-in VCO.
4	PCKIST	AI	—		Resistor terminal for setting the PDO output current.
5	VVDD	—	—		Power terminal for built-in VCO.
6	FR	AI	—		Resistor terminal for setting the VCO frequency range.
7	HFL	Input	—	Mirror detection signal input terminal.	
8	SLCIST	AI	—	For slice level control	Resistance connection terminal for current adjustment of SLCO output.
9	SLCO	Output	—		Control output.
10	EFMIN	Input	—		EFM signal input terminal.
11*	JITTV	Output	Unfixed	Jitter detection/monitor terminal.	
12	JITTC	Output	—	Jitter detection/adjustment terminal.	
13	BH	Input	—	BH signal input terminal. A/D input.	
14	PH(RFENV)	Input	—	PH signal or RFENV signal input terminal. A/D input.	
15	FE	Input	—	FE signal input terminal. A/D input.	
16	TE	Input	—	TE signal input terminal. A/D input.	
17	VREF	Input	—	VREF signal input terminal. A/D input.	
18	ADAVDD	—	—	AD for servo, D/A power terminal.	
19	ADAVSS	—	—	AD for servo, D/A ground terminal.	
20*	PHREF	Output	(1/2VDD)	PH reference output terminal. D/A output.	
21*	BHREF	Output	(1/2VDD)	BH reference output terminal. D/A output.	
22	TBLO	Output	(1/2VDD)	Output terminal for tracking balance. D/A output.	
23	TDO	Output	(1/2VDD)	Output terminal for tracking control. D/A output.	
24	FDO	Output	(1/2VDD)	Output terminal for focus control. D/A output.	
25	SPDO	Output	(1/2VDD)	Output terminal for spindle control. D/A output.	
26	SLDO	Output	(1/2VDD)	Output terminal for sled control. D/A output.	
27*	FG	Input	—	FG signal input terminal. (When not used,connect to 0V)	
28	LASER	Output	L	LASER ON/OFF control terminal.	
29	CONT1	In/Output	Input mode	General purpose input/output terminal 1.	Controlled with serial data command from microcomputer. When not used, set it as the input terminal and open it by connecting to 0V, or set it as the output terminal and open it.
30	CONT2	In/Output	Input mode	General purpose input/output terminal 2.	
31	CONT3	In/Output	Input mode	General purpose input/output terminal 3.	
32	CONT4	In/Output	Input mode	General purpose input/output terminal 4.	
33	CONT5	In/Output	Input mode	General purpose input/output terminal 5.	
34*	PCK	Output	H	Clock monitor terminal for EFM data replay. 4.3218MHz as phase clock.	
35*	C2F	Output	H	C2 flag output terminal.	
36	VDD	—	—	Power terminal of digital system.	
37*	DOUT	Output	L	Output terminal of digital OUT. (EIAJ format)	
38*	FSX	Output	L	Output terminal of synchronous signal of 7.35kHz divided from quartz oscillation.	
39*	EFLG	Output	L	C1,C2 correct monitor terminal.	
40	TEST	Input	—	Input terminal for test. Surely connected to 0V.	
41*	EMPH	In/Output	Input mode	Emphasis terminal. After resetting, it is configured as an input terminal. It can be controlled from the outside. It is also becomes a emphasis monitor terminal under command control.	
42*	MUTEL	Output	H	Mute output terminal for L channel.	
43*	MUTER	Output	H	Mute output terminal for R channel.	

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E) (2/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
44	LVDD	—	—	L channel	Power terminal for L channel.
45	LCHO	Output	1/2VDD	D/A converter	L channel output terminal.
46	LVSS	—	—		Ground terminal for L channel. Surely connected to 0V.
47	RVSS	—	—	R channel	Ground terminal for R channel. Surely connected to 0V.
48	RCHO	OUTPUT	1/2VDD	D/A converter	R channel output terminal.
49	RVDD	—	—		Power terminal for R channel.
50	XVDD	—	—	For quartz oscillation	Power terminal for quartz oscillation.
51	XIN	Input	Oscillation		Ground terminal of 16.9344MHz quartz oscillation.
52	XOUT	Output	Oscillation		
53	XVSS	—	—		Ground terminal for quartz oscillation. Surely connected to 0V.
54	ASLRCK	Input	—	For anti shock mode	L/R clock input terminal. (When not used,connect to 0V)
55	ASDACK	Input	—		Bit clock input terminal. (When not used,connect to 0V)
56	ASDFIN	Input	—		L/R channel data input terminal. (When not used,connect to 0V)
57*	LRSY	Output	L	For digital data output	L/R clock output terminal.
58*	DATAACK	Output	L		Bit clock output terminal.
59*	DATA	Output	L		L/R channel data output terminal.
60*	16M	Output	Clock output		16.9344MHz output terminal.
61*	SFSY	Output	L		Output terminal of synchronous signal of subcode frame. It drops when subcode stand by.
62*	SBSY	Output	L		Output terminal of synchronous signal of subcode block.
63*	PW	Output	L		Output terminal of subcodes P,A,R,S,T,U and W.
64	SBCK	Input	—		Clock input terminal to read subcode. (When not used,connect to 0V)
65	CE	Input	—	For microcomputer interface	Chip enable signal input terminal.
66	CL	Input	—		Data transmission clock input terminal.
67	DI	Input	—		Data input terminal.
68	DO	Output	L		Data output terminal.
69	INT	Output	H		Interruption signal output terminal.
70	WRQ	Output	H		Interruption signal output terminal.
71	RES	Input	—		Reset input terminal of LC78640. When turning on power, set it at "L".
72	DRF	Output	L		Focus ON detection terminal.
73	VDD5V	—	—		Power terminal for microcomputer interface.
74	VSS	—	—		Ground terminal of digital system. Surely connected to 0V.
75	CONT6	In/Output	Input mode	General purpose input/output terminal 6.	Controlled with serial data command from microcomputer. When not used, set it as the input terminal and open it by connecting to 0V, or set it as the output terminal and open it.
76	CONT7	In/Output	Input mode	General purpose input/output terminal 7.	
77*	V/ *P	Output	H		Monitor output terminal for automatic switch of rough servo/phase control. "H" for rough servo, and "L" for phase servo.
78*	FSEQ	Output	L		Output terminal synchronous signal detection. "H" is output when synchronous signal detected by EFM signal matches synchronous signal internally generated.
79	DEFECT	In/Output	Input mode		Defect terminal. After resetting, it is configured as an input terminal. It can be controlled from the outside. It also becomes a defect monitor terminal under command control
80*	EFMO	Output	Unfixed		EFM signal output terminal.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

Be sure to supply the same potential to each power terminal. (VVDD,ADAVDD,VDD,LVDD,RVDD,XVDD)

Terminal witch is controlled by the power terminal (VDD5V) for a microcomputer interface :

CE (65pin), CL (66pin), DI (67pin), DO (68pin), INT (69pin), WRQ (70pin), RES (71pin), DRF (72pin), CONT6 (75pin), CONT7 (76pin)

CD-BA120/125

IC701 RH-iX0336AWZZ: System Microcomputer (IX0336AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1	VDD	VDD	—	(+) POWER SUPPLY
2	P37	—	—	GND
3*	P36	S-BUSY	Output	COMMUNICATE TO MPEG U-COM
4	P35	T-BTAS	Output	TAPE RECORD BIAS
5	P34	T-T1/T2	Output	TAPE T1/T2 CHANGE
6	P33	REC/PLAY	Output	TAPE REC/PLAY CHANGE
7	P32	RES OUT	Output	CD DSP RESET & MPEG UCOM RESET
8	P31	DRF	Input	CD RF LEVEL DETECTION
9	P30	WRQ	Input	CD DSP WRITE REQUEST
10	RESET	RESET	Input	RESET
11	X2	X2	Output	MAIN CLOCK
12	X1	X1	Input	MAIN CLOCK
13	Vpp/IC	Vpp/IC	—	GND
14*	XT2	XT2	—	OPEN
15	P04	CD TNT	Input	CD DSP INTERRUPT
16	VDD	VDD	—	(+) POWER SUPPLY
17	P27	CD CLK/MCLK	Output	CD DSP CLOCK/MPEG UCOM CLOCK
18	P26	CD ID/MDI	Output	CD DSP COMMAND/MPEG UCOM COMMAND
19	P25	CD DO/MDO	Input	CD DSP CODE Q OUT/MPEG UCOM DATA INPUT
20	P24	CD CE	Output	CD DSP CE OUTPUT
21	P23	CE	Output	CE OUTPUT
22	P22	CLK	Output	CLOCK OUTPUT
23	P21	DT	Output	DATA OUTPUT
24	P20	DO	Output	DATA INPUT
25	AVss	AVSS	—	ANALOG GROUND
26	ANI7 P17	TUN SM M-BUSY	Input Input	TUNER SIGNAL METER INPUT COMMUNICATE TO MPEG UCOM M_BUSY
27	ANI6	NO USE	Input	GND
28	ANI5	SPEANA 2	Input	SPEANA DATA INPUT 16 KHz
29	ANI4	SPEANA 1	Input	SPEANA DATA INPUT 1 KHz
30	ANI3	SPEANA 0	Input	SPEANA DATA INPUT 63 KHz
31-33	ANI2-ANI0	KEY2-KEY0	Input	KEY INPUT
34	AVDD	AVDD	—	ANALOG VDD
35	AVREF	AVREF	—	ANALOG REF VOLTAGE
36	INTP3	SYS STOP	Input	SYSTEM STOP INPUT
37*	P02	SPRLY	Output	SPEAKER OUTPUT RELAY CONTROL
38	INTP1	NO USED	Input	GND
39	INTP0	REMOCON	Input	REMOCON INPUT
40	Vss	VSS	—	GROUND VOLTAGE
41	P74	SMUTE	Output	SYSTEM MUTE CONTROL
42	P73	T_SOL_B	Output	TAPE2 SOLENOID CONTROL
43	P72	T_SOL_A	Output	TAPE1 SOLENOID CONTROL
44	P71	T_MOTOR	Output	TAPE MOTOR CONTROL
45	P70	TIMER LED	Output	TIMER LED CONTROL
46	VDD	VDD	—	(+) POWER SUPPLY
47*	P127	AC RLY_CONT	Output	AC RELAY CONTROL
48	P126	SPRLY	Output	SPEAKER OUTPUT RELAY CONTROL
49	P125	SP DET	Input	SPEAKER OUTPUT DETECTION
50	P124	T1 RUN	Input	TAPE1 RUN PULSE INPUT
51	P123	T2 RUN	Input	TAPE2 RUN PULSE INPUT
52	P122	CD CLAMP SW	Input	CD CHANGER CLAMP SWITCH
53	P121	PLAY SW_A	Input	PLAY SWITCH FOR T1

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

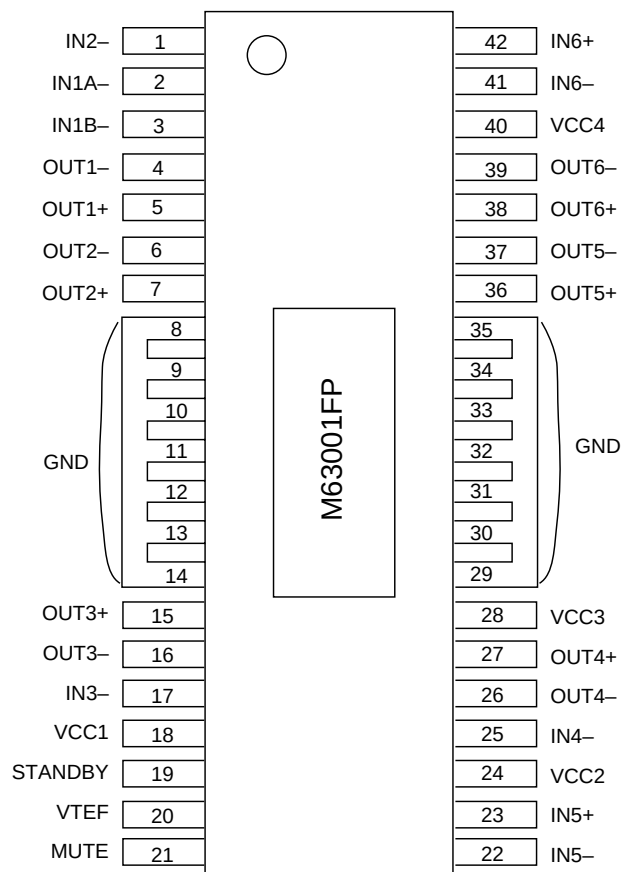
IC701 RH-iX0336AWZZ: System Microcomputer (IX0336AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
54	P120	PLAY SW_B	Input	PLAY SWITCH FOR T2
55	P119	PPA	Input	TAPE2 A-SIDE FULL PROOF
56	P118	FPB	Input	TAPE2 B_SIDE FULL PROOF
57	P117	MIC SW	Input	MIC SWITCH
58*	P116	KARAOKE LATCH	Output	KARAOKE LATCH
59*	P115	DISTOUT	Output	DISTINATION OUTPUT
60	FIP39	SPN	Input	TUNER SPAN CHANGE
61*-62*	FIP38-FIP37	NO USE	Input	OPEN
63*-66*	FIP36-FIP33	P22-P19	Output	FL DISPLAY DRIVER
67*-70*	FIP32-FIP29 P103-P100	P18-P15	Output	FL DISPLAY DRIVER
		DIST3-DIST0	Input	DISTINATION INPUT
71-78	FIP28-FIP21	P14-P7	Output	FL DISPLAY DRIVER
79	VLOAD	VLOAD	—	FL DRIVER (–) POWER SUPPLY.–30V
80-85	FIP20-FIP15	P6-P1	Output	FL DISPLAY SEGMENT
86-89	FIP14-FIP11	—	Input	OPEN
90-100	FIP30-FIP0	G11-G1	IOOutput	FL DISPLAY SEGMENT DRIVER

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3 VHiM63001FP-1: Focus/Tracking/Spin/Slide Driver (M63001FP)

Pin No.	Terminal Name	Function
1	IN2-	CH2 inverted input.
2	IN1A-	CH1 inverted input.
3	IN1B-	CH1 output offset control.
4	OUT1-	CH1 inverted output.
5	OUT1+	CH1 non-inverted output.
6	OUT2-	CH2 inverted output.
7	OUT2+	CH2 non-inverted output.
8-14	GND	GND
15	OUT3+	CH3 non-inverted output.
16	OUT3-	CH3 inverted output.
17	IN3-	CH3 inverted input.
18	VCC1	Power supply 1 (CH1, CH2, CH3)
19	STANDBY	STANDBY signal input.
20	VRFE	CH1-CH4 Reference voltage input.
21	MUTE	Mute signal input (CH6).
22	IN5-	CH5 inverted input.
23	IN5+	CH5 non-inverted input.
24	VCC2	Power supply 2 (CH4).
25	IN4-	CH4 inverted input.
26	OUT4-	CH4 inverted output.
27	OUT4+	CH4 non-inverted output.
28	VCC3	Power supply 3 (CH5).
29-35	GND	GND
36	OUT5+	CH5 non-inverted output.
37	OUT5-	CH5 inverted output.
38	OUT6+	CH6 non-inverted output.
39	OUT6-	CH6 inverted output.
40	VCC4	Power supply 4 (CH6).
41	IN6-	CH6 inverted input.
42	IN6+	CH6 non-inverted input.

**Figure 43 BLOCK DIAGRAM OF IC**

IC601 VHiLC75341/-1: Audio Processor (LC75341)

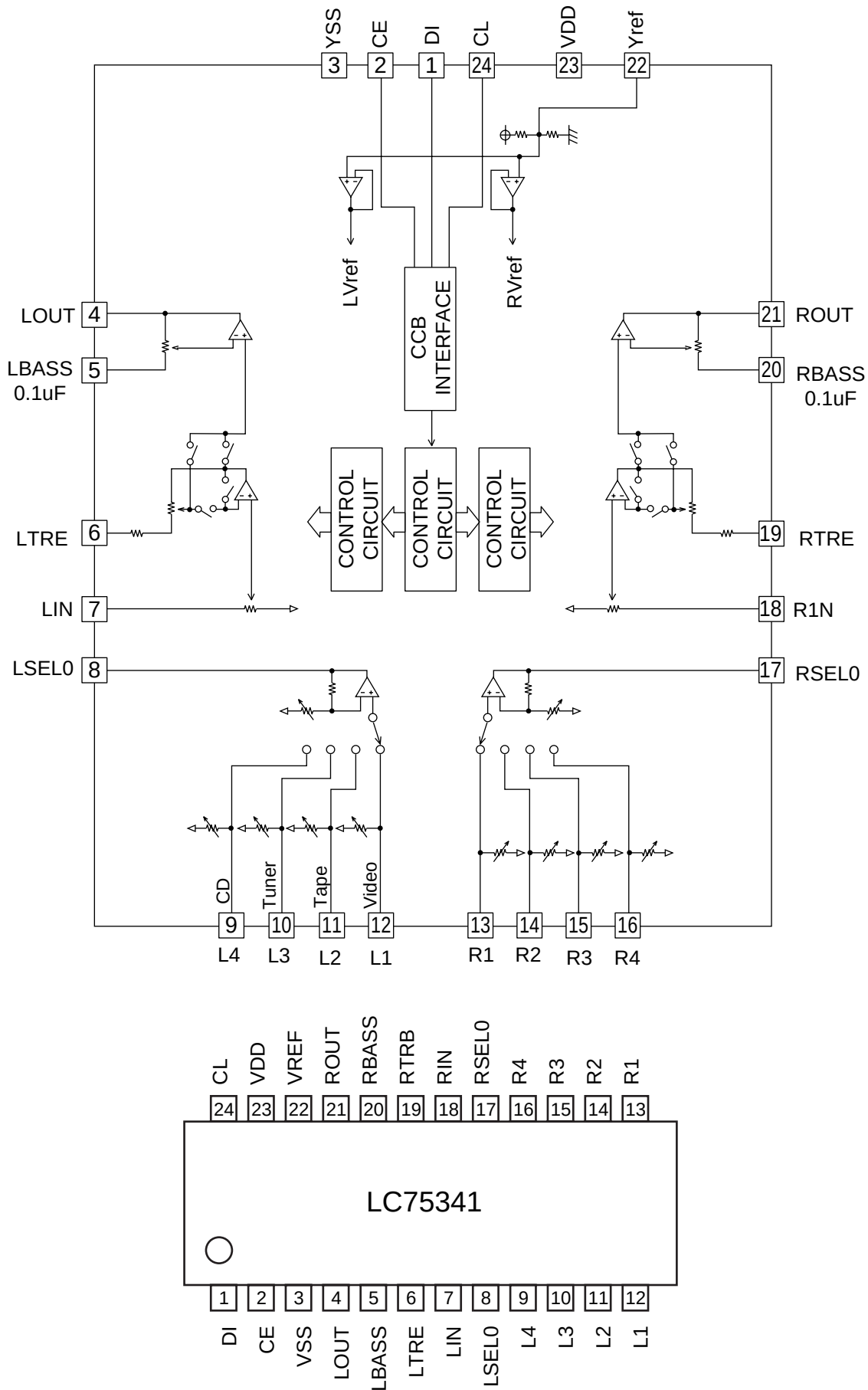
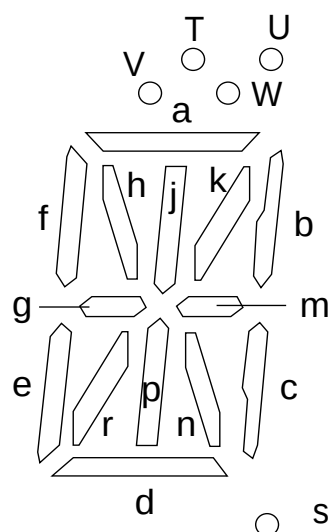
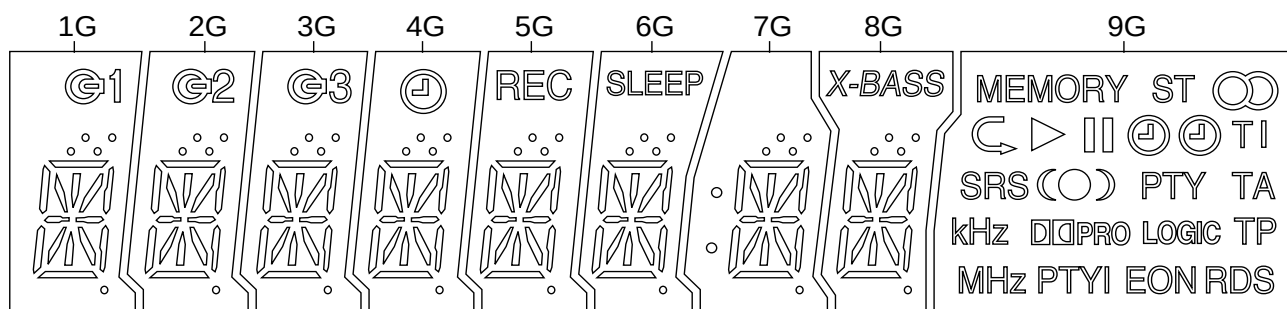


Figure 44 BLOCK DIAGRAM OF IC

FL701 VVKSVA9MS13-1: FL Display

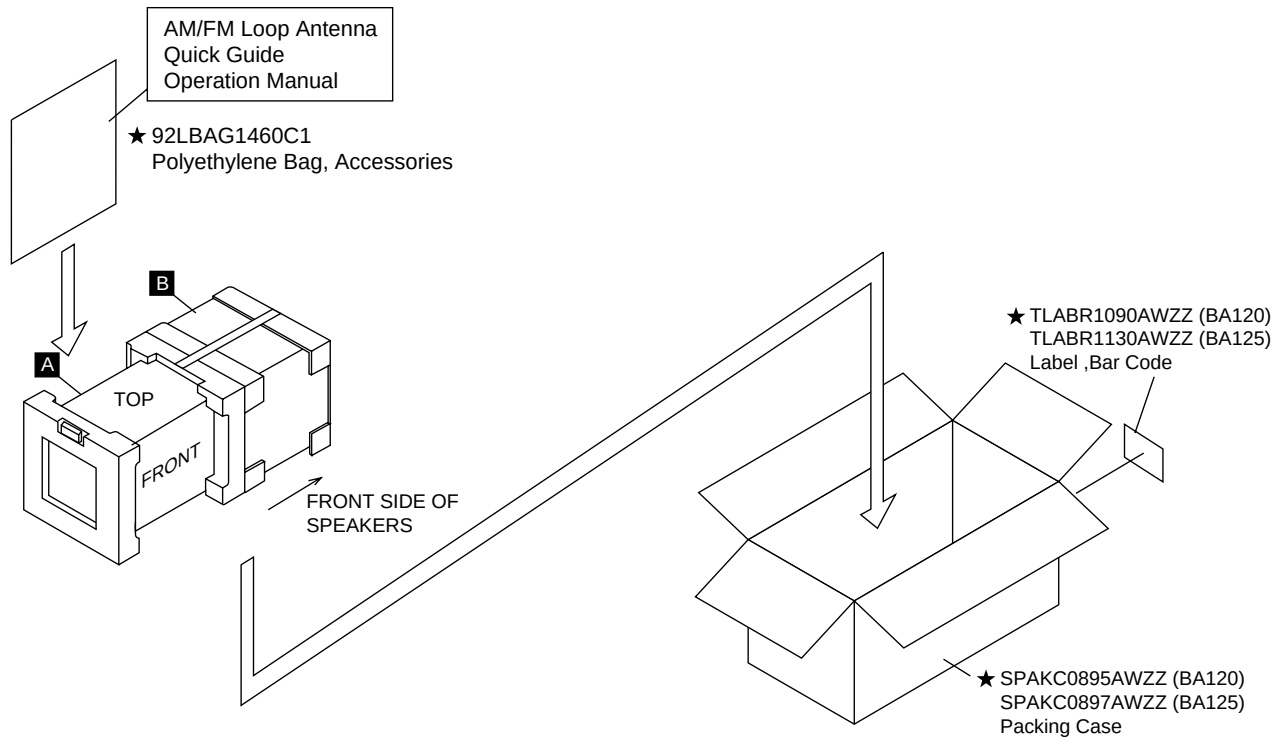
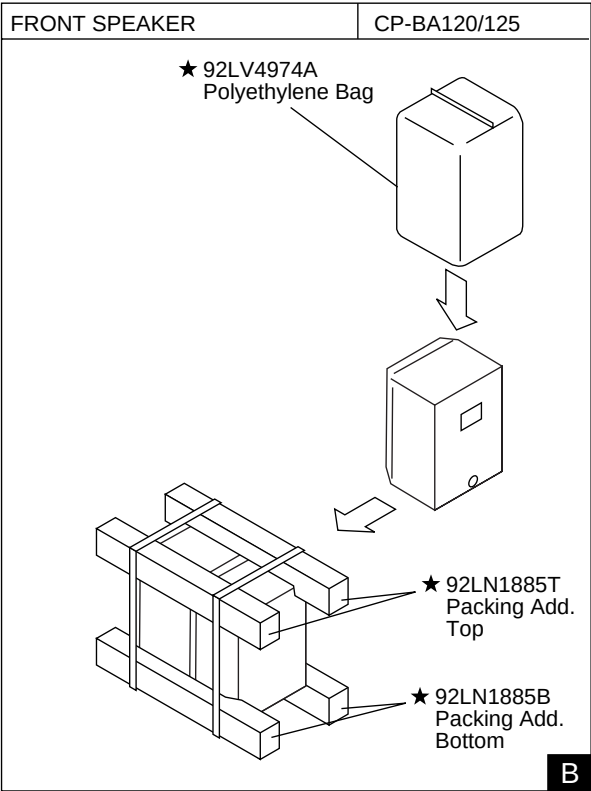
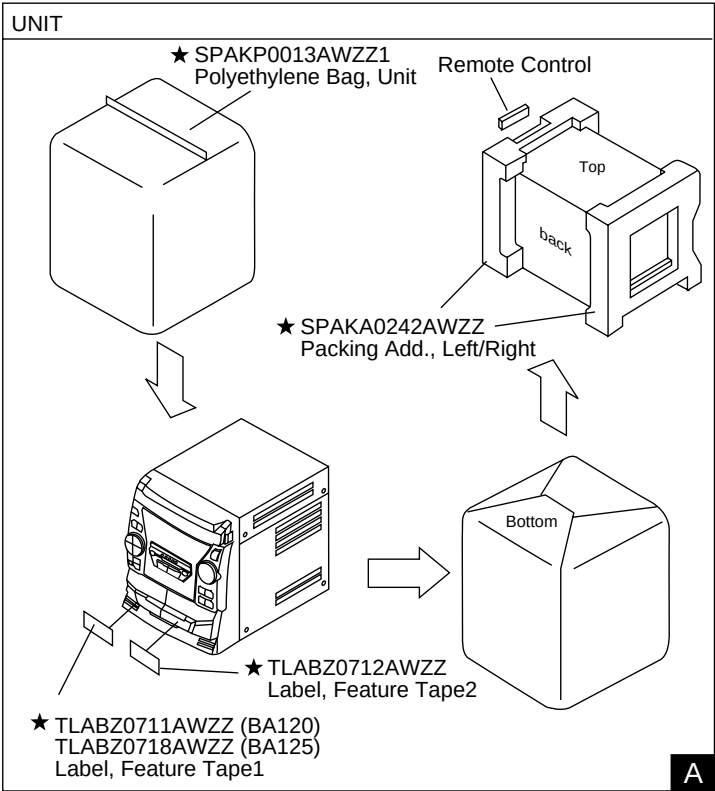


	1G	2G	3G	4G	5G	6G	7G	8G	9G
P1	G1	G2	G3	REC	SLEEP	:	X-BASS	PTYI	
P2	U	U	U	U	U	U	U	U	
P3	T	T	T	T	T	T	T	T	TA
P4	V	V	V	V	V	V	V	V	TP
P5	W	W	W	W	W	W	W	W	RDS
P6	a	a	a	a	a	a	a	a	TI
P7	b	b	b	b	b	b	b	b	ST
P8	k	k	k	k	k	k	k	k	MEMORY
P9	j	j	j	j	j	j	j	j	PTY
P10	h	h	h	h	h	h	h	h	ST
P11	f	f	f	f	f	f	f	f	MEMORY
P12	m	m	m	m	m	m	m	m	PTY
P13	d	d	d	d	d	d	d	d	ST
P14	g	g	g	g	g	g	g	g	MEMORY
P15	p	p	p	p	p	p	p	p	PTY
P16	e	e	e	e	e	e	e	e	ST
P17	n	n	n	n	n	n	n	n	MEMORY
P18	r	r	r	r	r	r	r	r	PTY
P19	c	c	c	c	c	c	c	c	ST
P20	s	s	s	s	s	s	s	s	MEMORY

Figure 45 FL DISPLAY

PACKING OF THE SET (FOR U.S.A. ONLY)

Setting position of switches and knobs	
Tape Mechanism	STOP



★Not Replacement Item

SHARP SERVICE MANUAL

No. S2010CDBA120/

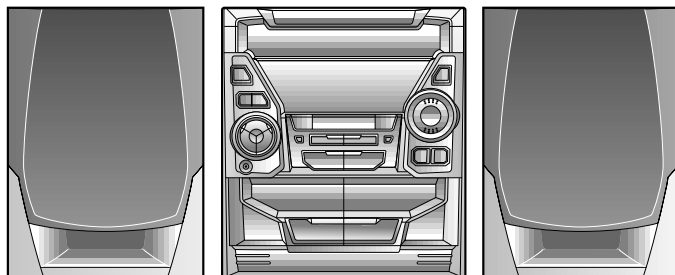


Illustration: CD-BA120



CD-BA120

CD-BA120 Mini Component System consisting of CD-BA120 (main unit) and CP-BA120 (speaker system).

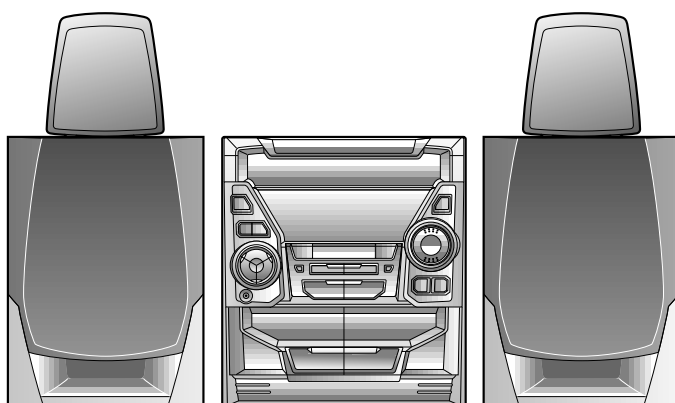


Illustration: CD-BA125



CD-BA125

CD-BA125 Mini Component System consisting of CD-BA125 (main unit), CP-BA125 (Front speaker) and GBOXS0042AWM1 (rear speaker).



- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

CONTENTS

	Page
IMPORTANT SERVICE NOTES (FOR U.S.A. ONLY)	2
SPECIFICATIONS	2
NAMES OF PARTS	3
OPERATION MANUAL	5
QUICK GUIDE	6
DISASSEMBLY	7
REMOVING AND REINSTALLING THE MAIN PARTS	10
ADJUSTMENT	11
NOTES ON SCHEMATIC DIAGRAM	13
WAVEFORMS OF CD CIRCUIT	14
BLOCK DIAGRAM	15
SCHEMATIC DIAGRAM / WIRING SIDE OF P.W.BOARD	18
VOLTAGE	34
TROUBLESHOOTING (CD SECTION)	35
FUNCTION TABLE OF IC.....	39
FL DISPLAY	45
REPLACEMENT PARTS LIST/EXPLODED VIEW	
PACKING OF THE SET (FOR U.S.A. ONLY)	

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

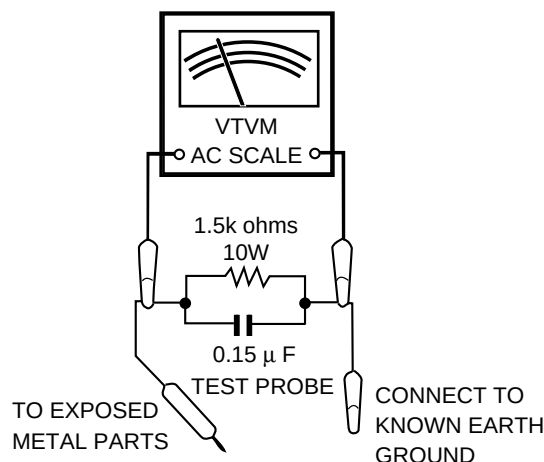
IMPORTANT SERVICE NOTES (FOR U.S.A. ONLY)

BEFORE RETURNING THE AUDIO PRODUCT

(Fire & Shock Hazard)

Before returning the audio product to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the audio product.
2. Inspect all protective devices such as insulating materials, cabinet, terminal board, adjustment and compartment covers or shields, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - * Plug the AC line cord directly into a 120 volt AC outlet.
 - * Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as conduit or electrical ground connected to earth ground.
 - * Use a VTVM or VOM with 1000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor (See diagram).
 - * Connect the resistor connection to all exposed metal parts having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.



All check must be repeated with the AC line cord plug connection reversed.

Any reading of 0.3 volt RMS (this corresponds to 0.2 milliamp. AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the audio product to the owner.

CD-BA120/125

● General

Power source: AC 120 V, 60 Hz
Power consumption: 35 W
Dimensions: Width; 10-5/8" (270 mm)
 Height; 11-13/16" (300 mm)
 Depth; 14-11/16" (373 mm)
Weight: 10.6 lbs. (4.8 kg)

● Amplifier section

Output power: 10 watts minimum RMS per channel into 8 ohms from 100 Hz to 20 kHz, 10 % total harmonic distortion
(Except for Canada)
Output power: RMS; 20 W (10 W + 10 W)
(For Canada) (10 % T.H.D.)
Output terminals: Speakers; 8 ohms
(CD-BA120) Headphones; 16-50 ohms (recommended; 32 ohms)
Output terminals: Front speakers; 8 ohms
(CD-BA125) Rear speakers; 16 ohms
 Headphones; 16-50 ohms (recommended; 32 ohms)

● Compact disc player section

Type: 3-disc multi-play compact disc player
Signal readout: Non-contact, 3-beam semiconductor laser pickup
D/A converter: 1-bit D/A converter
Frequency response: 20 - 20,000 Hz
Dynamic range: 90 dB (1 kHz)

● Tuner section

Frequency range: FM; 87.5-108 MHz
 AM; 530-1,720 kHz

SPECIFICATIONS

● Cassette deck section

Frequency response: 50-14,000 Hz (Normal tape)
Signal/noise ratio: 55 dB (TAPE 1, playback)
 50 dB (TAPE 2, recording/playback)
Wow and flutter: 0.3 % (WRMS)

CP-BA120/125

● Speaker section

Type: 4" (10 cm) full-range speaker
Maximum input power: 20 W
Rated input power: 10 W
Impedance: 8 ohms
Dimensions: Width; 8-11/16" (220 mm)
 Height; 11-13/16" (300 mm)
 Depth; 7-1/16" (180 mm)
Weight: 4.4 lbs. (2.0 kg)/each

GBXS0042AWM1

● Rear speaker section (CD-BA125 Only)

Type: 3-3/32" (8 cm) full-range speaker
Maximum input power: 5 W
Rated input power: 10 W
Impedance: 16 ohms
Dimensions: Width; 6" (150 mm)
 Height; 6" (150 mm)
 Depth; 3" (78 mm)
Weight: 0.9 lbs. (0.4 kg)/each

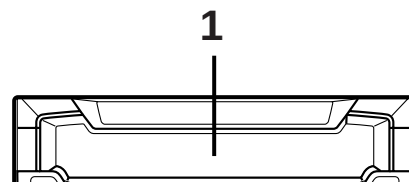
Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

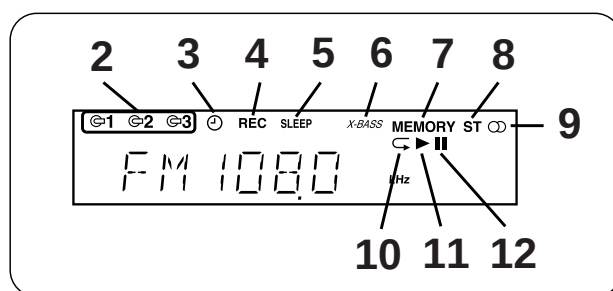
CD-BA120/125

■ Front panel

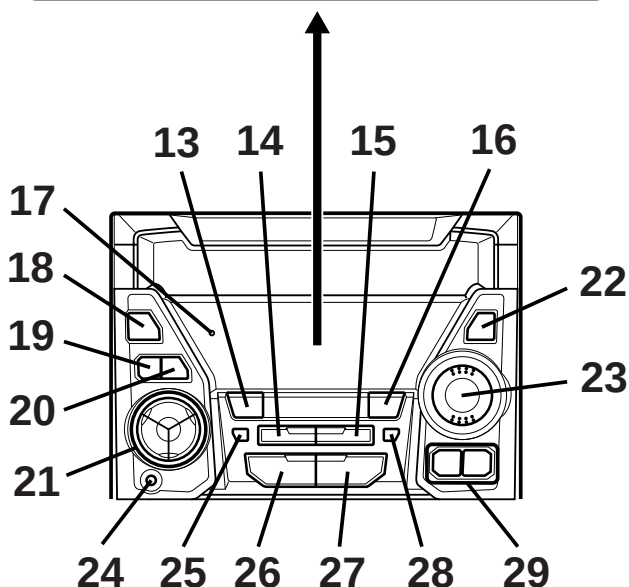
1. (CD) Disc Tray



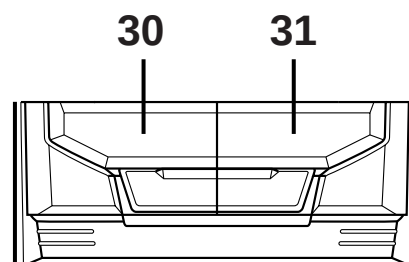
2. (CD) Disc Number Indicators
3. Timer Indicator
4. Record Indicator
5. Sleep Indicator
6. Extra Bass Indicator
7. (CD/TUNER) Memory Indicator
8. FM Stereo Mode Indicator
9. FM Stereo Indicator
10. (CD) Repeat Indicator
11. (CD/TAPE) Play Indicator
12. (CD) Pause Indicator



13. (CD) Disc Skip Button
14. (CD) Track Down/Review Button
(TUNER) Preset Down Button
(TAPE 2) Rewind Button
15. (CD) Track Up/Cue Button
(TUNER) Preset Up Button
(TAPE 2) Fast Forward Button
16. (CD) Open/Close Button
17. Timer Set Indicator
18. On/Stand-by Button
19. Timer/Sleep Button
20. Clock Button
21. Function Selector Buttons
22. Equalizer Mode Selector/Extra Bass/Demo Mode Button
23. Volume Up/Down Buttons
24. Headphone Socket
25. Memory/Set Button
26. (CD/TAPE) Stop Button
27. (CD) Play/Repeat Button
(TAPE) Play Button
28. (TAPE 2) Record Pause Button
29. Tuning/Time Up/Down Buttons



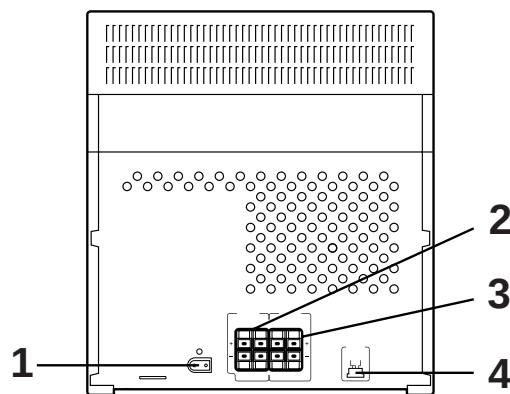
30. (TAPE 1) Cassette Compartment
31. (TAPE 2) Cassette Compartment



CD-BA120/125

■ Rear panel

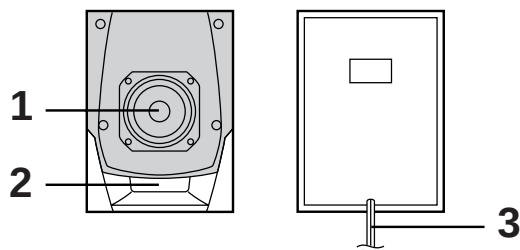
1. AC Power Input Socket
2. Rear Speaker Terminals (CD-BA125 Only)
3. Front Speaker Terminals
4. FM/AM Loop Aerial Socket



CP-BA120/125

■ Front speaker

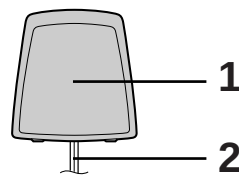
1. Woofer
2. Bass Reflex Duct
3. Speaker Wire



GBOXS0042AWM1

■ Rear speaker (CD-BA125 Only)

1. Full-Range Speaker
2. Speaker Wire



CD-BA120/125

■ Remote control

1. Remote Control Transmitter LED

● CD control section

2. Disc Number Select Buttons
3. Memory Button
4. Pause Button
5. Clear Button
6. Track Down/Review Button
7. Track Up/Cue Button
8. Disc Skip Button
9. Play/Repeat Button
10. Stop Button
11. Random Button

● Tuner control section

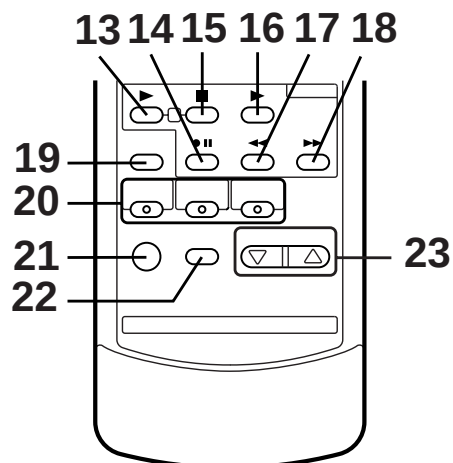
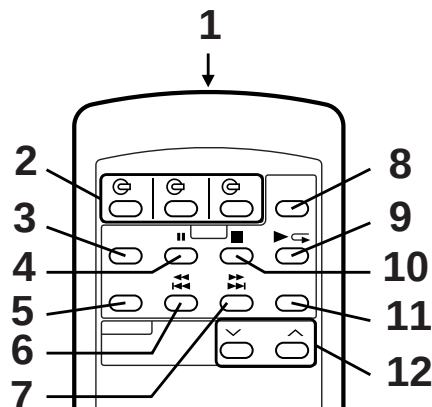
12. Preset Up/Down Buttons

● Tape control section

13. (TAPE 1) Play Button
14. (TAPE 2) Record Pause Button
15. (TAPE 1/2) Stop Button
16. (TAPE 2) Play Button
17. (TAPE 2) Rewind Button
18. (TAPE 2) Fast Forward Button

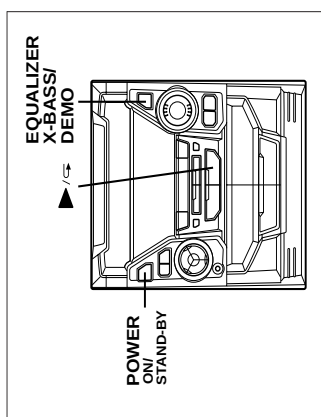
● Common section

19. Equalizer Mode Selector Button
20. Function Selector Buttons
21. On/Stand-by Button
22. Extra Bass Button
23. Volume Up/Down Buttons



OPERATION MANUAL

RESETTING THE MICROCOMPUTER



Reset the microcomputer under the following conditions:

- To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).
 - If the display is not correct.
 - If the operation is not correct.
- Press the ON/STAND-BY button to enter the stand-by mode.
 - While pressing down the $\blacktriangle/\rightarrow$ button and the EQUALIZER/X-BASS/DEMO button, hold down the ON/STAND-BY button for at least 1 second.

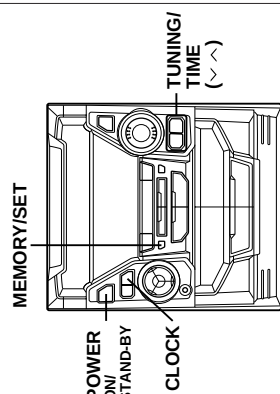
- "CLEAR AL" will appear.

Caution:

- The operation explained above will erase all data stored in memory including clock and timer settings, and tuner and CD presets.

SETTING THE CLOCK

(Main unit operation)



2

CLOCK

3

AM 12:00

4

AM 12:00

AM 12:00 ↔ AM 0:00 ↔ 0:00

5

AM 12:00

6

AM 10:00

7

AM 10:00

8

AM 10:30

9

AM 10:30

In this example, the clock is set for the 12-hour (AM 12:00) system.

- Press the ON/STAND-BY button to enter the stand-by mode.
- Press the CLOCK button.
- Within 5 seconds, press the MEMORY/SET button.
- Press the TUNING/TIME ($\vee$ or $\wedge$) button to select the time display mode.
"AM 12:00" → The 12-hour display will appear.
"AM 0:00" → The 12-hour display will appear.
"0:00" → The 24-hour display will appear.
(0:00 - 23:59)

- Note that this can only be set when the unit is first installed or it has been reset (see page 15).

- Press the MEMORY/SET button.

- Press the TUNING/TIME ($\vee$ or $\wedge$) button to adjust the hour.
Press the TUNING/TIME ($\vee$ or $\wedge$) button once to advance the time by 1 hour. Hold it down to advance continuously.

- When the 12-hour display is selected, "AM" will change automatically to "PM".

- Press the MEMORY/SET button.

- Press the TUNING/TIME ($\vee$ or $\wedge$) button to adjust the minutes.

- Press the TUNING/TIME ($\vee$ or $\wedge$) button once to advance the time by 1 minute. Hold it down to change the time in 5 minute intervals.

- The hour setting will not advance even if minutes advance from "59" to "00".

- Press the MEMORY/SET button.

- The clock starts operating from "0" second.
(Seconds are not displayed.)

- And then the clock display will disappear after a few seconds.

To see the time display:

- Press the CLOCK button.
- The time display will appear for about 5 seconds.

Note:

- The clock display will flash on and off at the push of the CLOCK button when the AC power supply is restored after a power failure occurs or after the AC power cord is disconnected. If this happens, follow the procedure below to change the clock time.

To change the clock time:

- Press the CLOCK button.
- Within 5 seconds, press the MEMORY/SET button.
- Perform steps 6 - 9 above.

To change the time display mode:

- Perform steps 1 - 2 in the section "RESETTING THE MICROCOMPUTER", on page 15.
- Perform steps 1 - 9 above.

1 Check the supplied accessories / Compruebe los accesorios suministrados



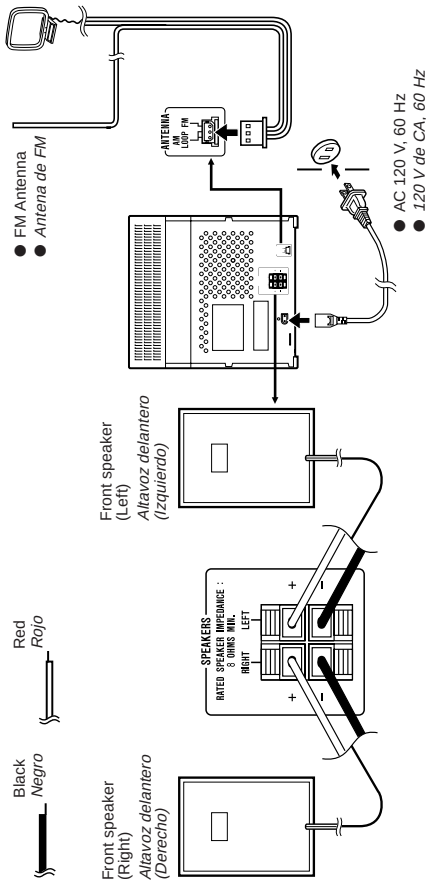
2 Preparation for use / Preparación para su uso

Speaker connection Conexión de los altavoces

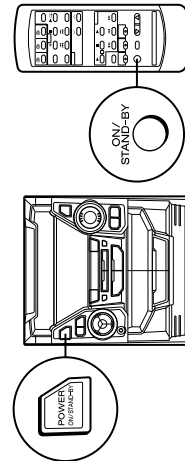


Antenna connection Conexión de las antenas

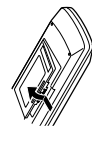
- AM Loop Antenna
● Antena de cuadro de AM
- FM Antenna
● Antena de FM



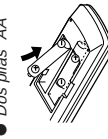
Switching between power-on and stand-by mode Cambio entre la conexión de la alimentación y el modo de reserva



Remote control Controlador remoto

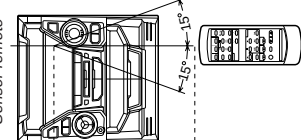


- 2 "AA" batteries
● Dos pilas "AA"

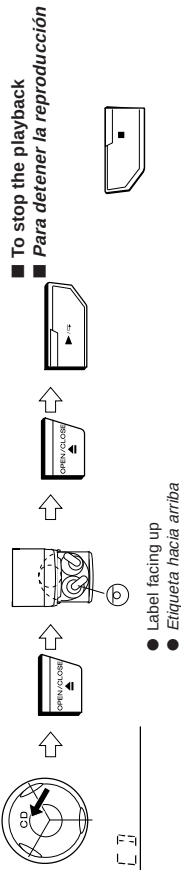


- Batteries are not included.
● Las pilas no están incluidas.

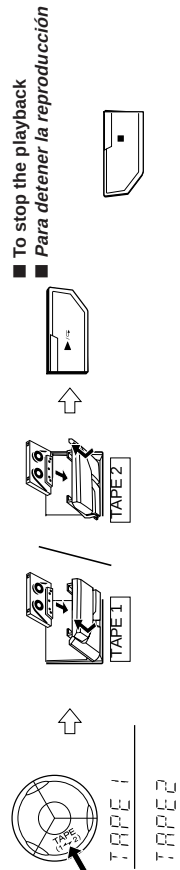
Remote Sensor Sensor remoto



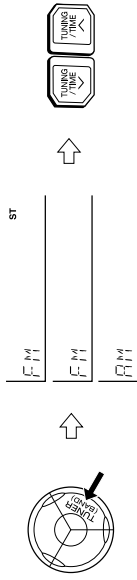
3 Listening to a CD / Audición de discos CD



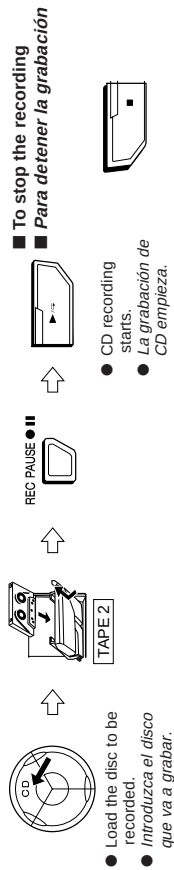
4 Listening to a tape / Audición de una cinta



5 Listening to the radio / Audición de la radio

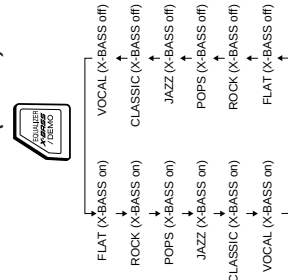
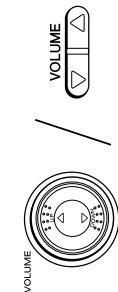


6 Recording from CDs / Grabaciones de discos CD



7 Sound control / Control del sonido

- Extra bass (X-BASS) / Pre-programmed equalizer
- Graves extra (X-BASS) / ecualizador preprogramado



<Extra bass (X-BASS)>
<Graves extra (X-BASS)>

<Pre-programmed equalizer>
<Ecualizador preprogramado>

FLAT → ROCK → POPS
VOCAL → CLASSIC → JAZZ

TINS20533AWZZ A9911.HK

Printed in Malaysia
Impreso en Malaysia

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

CD-BA120/125

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw (A1) x4	7-1
2	Side Panel (Left/right)	1. Screw (B1) x6	7-1
3	CD Player Unit/ CD Tray Cover	1. Turn on the power supply, open the disc tray, take out the CD cover, and close. (Note 1) 2. Screw (C1) x1 3. Hook (C2) x3 4. Hook (C3) x2 5. Socket (C4) x2	7-2
4	Main/Headphones PWB/Rear Panel	1. Screw (D1) x11 2. Socket (D2) x4 3. Flat Cable (D3) x1	7-2, 8-2
5	Front Panel	1. Screw (E1) x3	8-2
6	Display PWB	1. Screw (F1) x9 2. Flat Cable (F2) x1	8-3
7	Tape Mechanism	1. Open the cassette holder. 2. Screw (G1) x6	8-3
9	Turntable	1. Hook (H1) x2 2. Cover (H2) x1	8-4
10	Disc Tray	1. Turn fully the lock lever in the arrow direction. 2. While holding the lock lever, rotate the cam gear until the cam gear rib engages with the clamp lever. 3. Push the slide holder backward to engage the claw with the groove and remove it in the direction of the arrow. (J1) x6	7-3 8-1 8-5
11	CD Servo PWB (Note 2)	1. Screw (K1) x1 2. Hook (K2) x2 3. Socket (K3) x4	8-6
12	CD Mechanism	1. Hook (L1) x2 2. Hook (L2) x3	9-1
13	Loading Motor PWB	1. Hook (M1) x5	9-1

Note 1:

How to open the changer manually. (Fig. 7-3)

1. In this state, turn fully the lock lever in the arrow direction through the hole on the loading chassis bottom.
2. While holding the lock lever, rotate the cam gear anticlockwise until the cam gear rib engages with the clamp lever. (Fig. 8-1)
3. After that, push forward the CD slide holder.

Note 2:

1. After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of the connector so as to protect the optical pickup from electrostatic damage.

CD-BA120/125

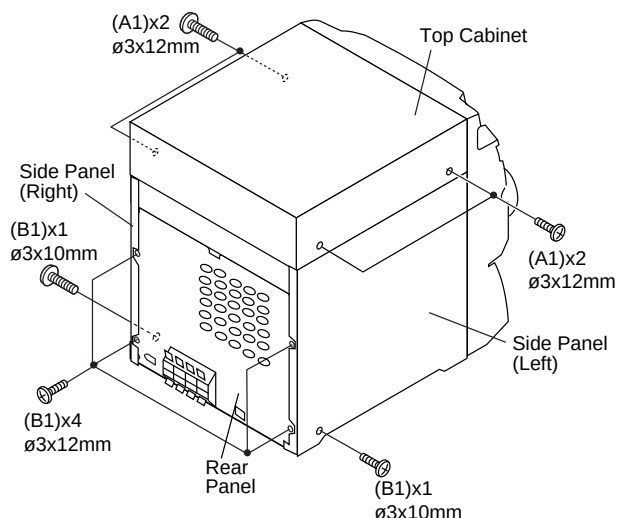


Figure 7-1

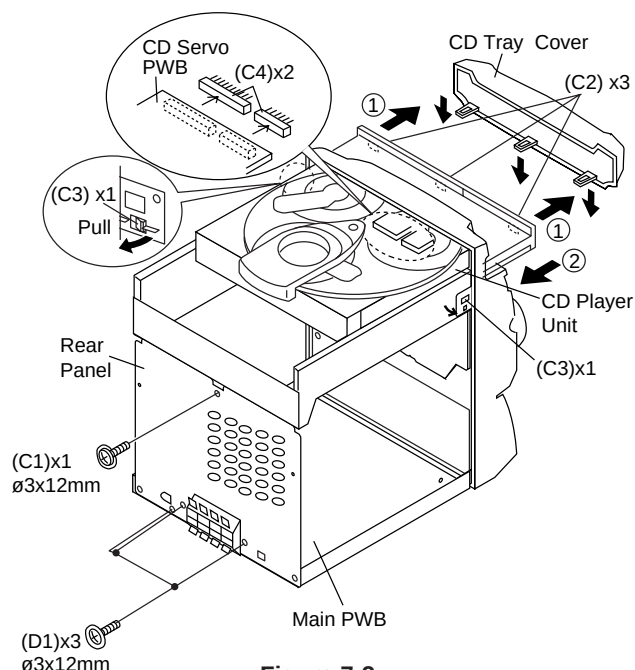


Figure 7-2

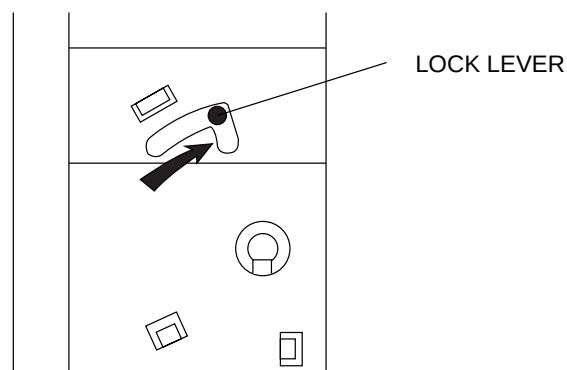


Figure 7-3

Note 3:

1. Be careful not to break the claw of the CD mechanism.
2. When fining back the cam gear assembly, let it lock by front movement.

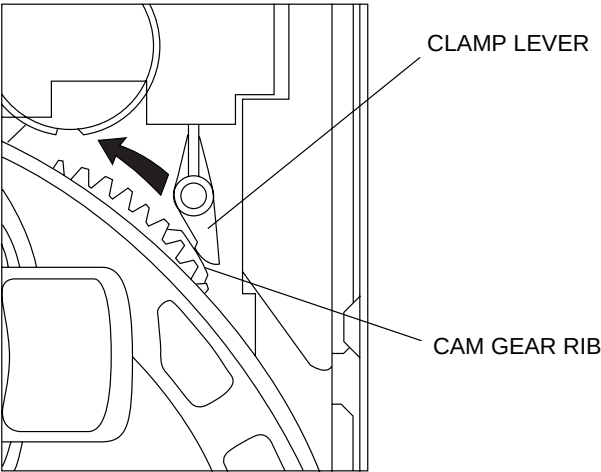


Figure 8-1

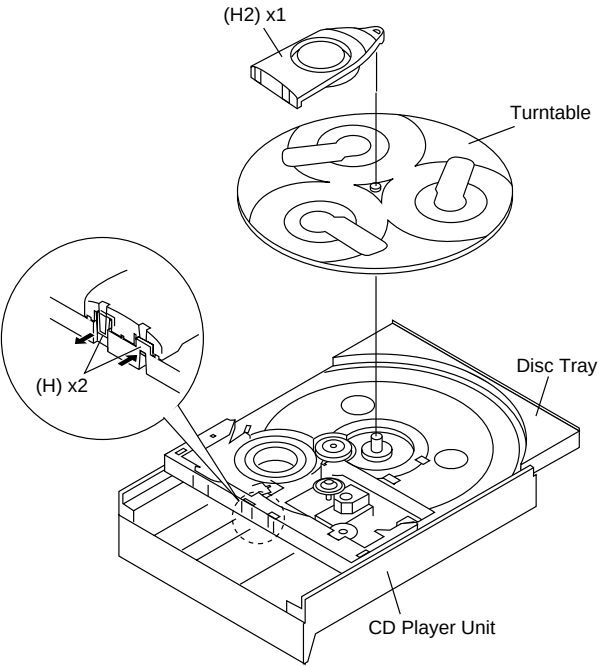


Figure 8-4

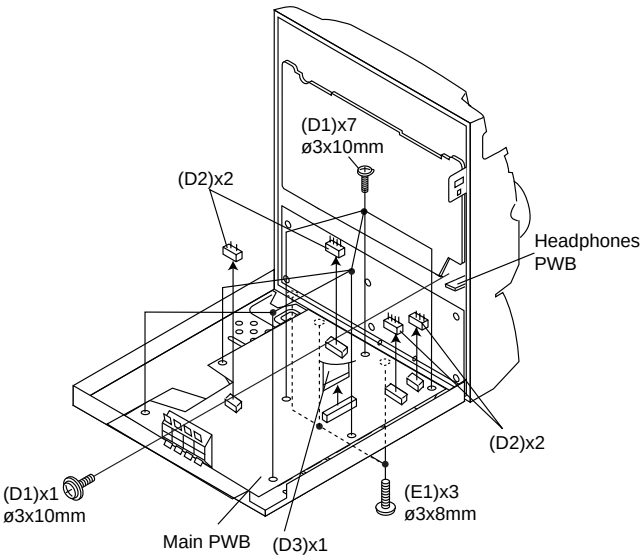


Figure 8-2

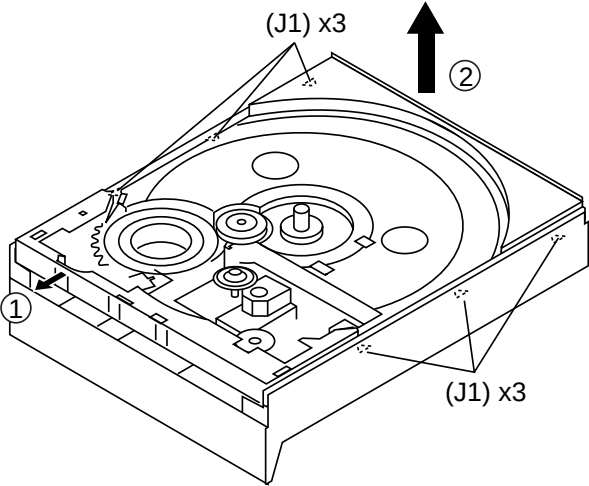


Figure 8-5

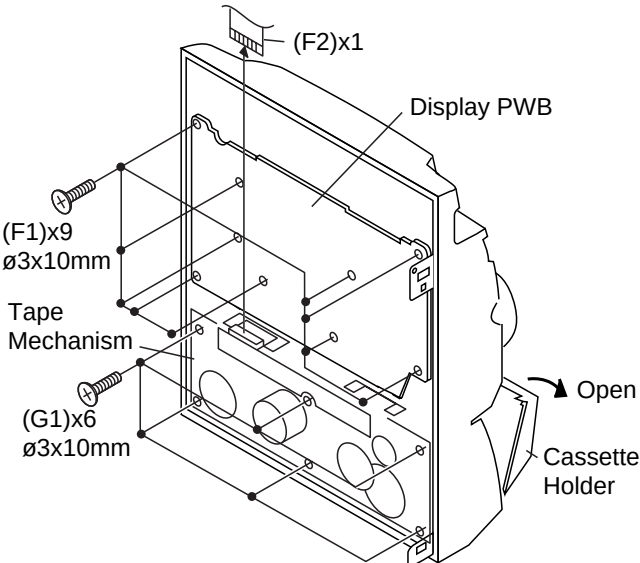


Figure 8-3

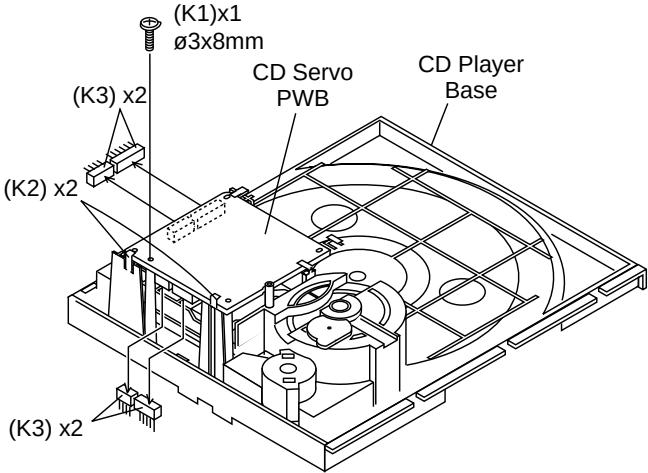


Figure 8-6

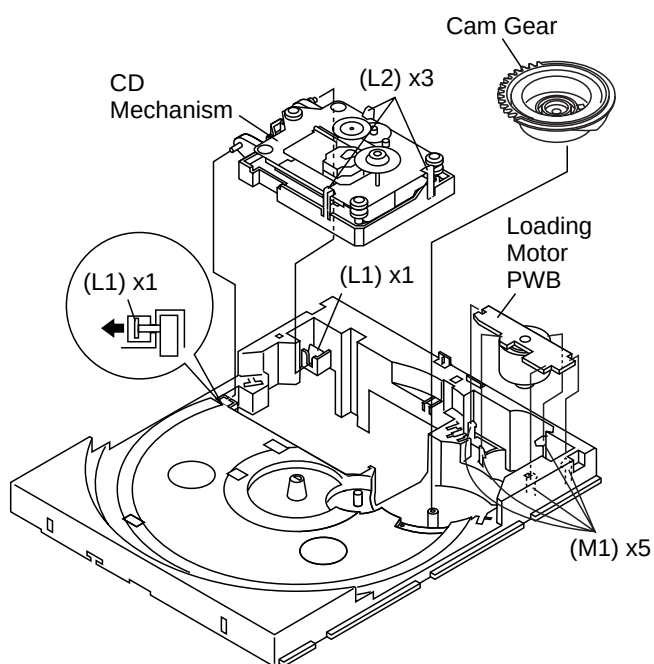


Figure 9-1

CP-BA120/125			
STEP	REMOVAL	PROCEDURE	FIGURE
1	Speaker	1. Net (A1) x1 2. Duct Panel (A2) x1 3. Screw (A3) x4	9-1 9-2

CP-BA120/125

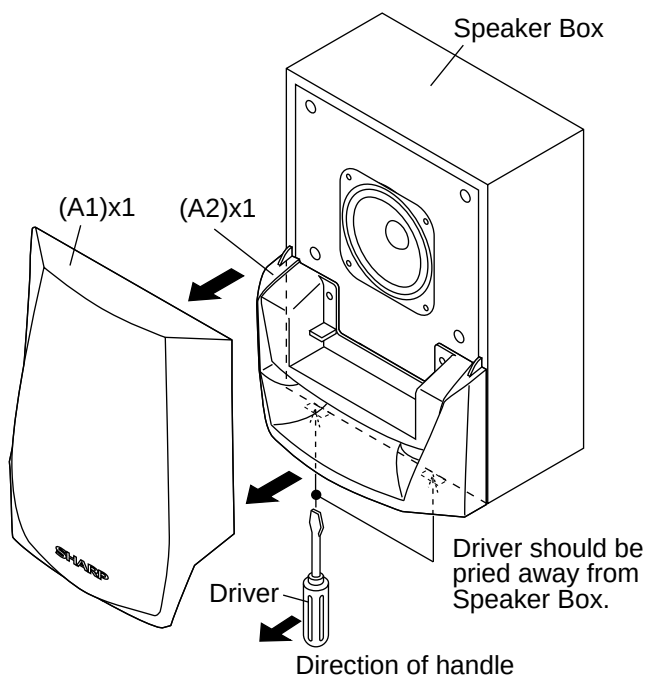


Figure 9-2

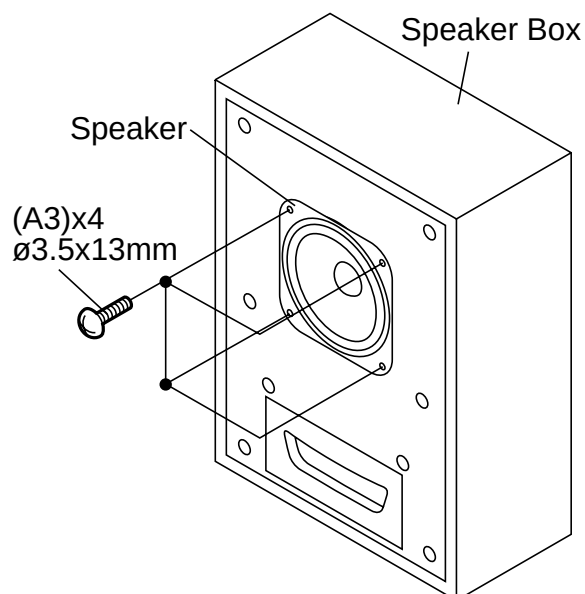


Figure 9-3

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1 to 5 and 7 of the disassembly method to remove the tape mechanism.

How to remove the record/playback and erase heads (TAPE 2) (See Fig. 10-1)

1. Carefully remove the record/playback head and erase head screw (A1) x 2 pcs.

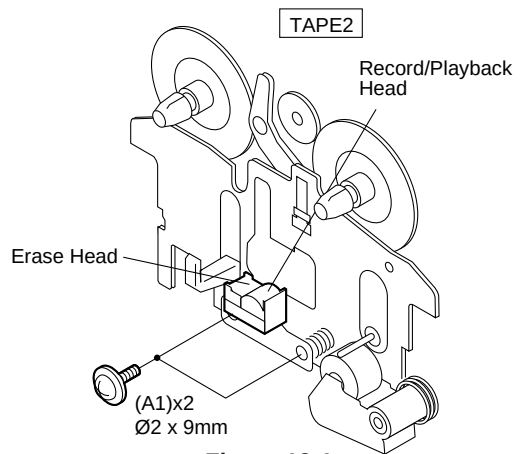


Figure 10-1

How to remove the playback head (TAPE 1) (See Fig. 10-2)

1. Carefully remove the playback head screw (B1) x 2 pcs.

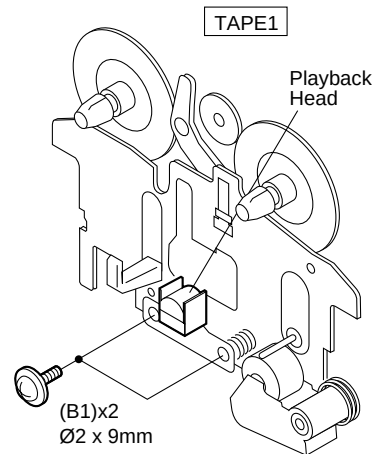


Figure 10-2

How to remove the pinch roller (TAPE 1/2) (See Fig. 10-3)

1. Carefully bend the pinch roller pawl in the direction of the arrow <A>, and remove the pinch roller (C1) upwards.

Note:

When installing the pinch roller, pay attention to the spring mounting position.

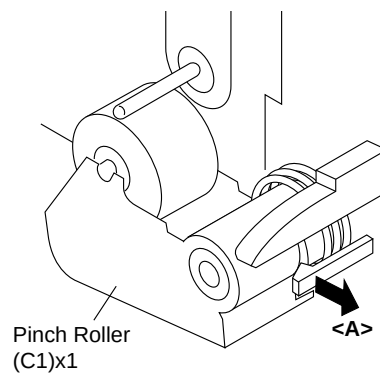


Figure 10-3

How to remove the belt (TAPE 1) (See Fig. 10-4)

1. Remove the main belt (D1) x 1 pc., from the motor side.
2. Remove the FF/REW belt (D2) x 1 pc.

How to remove the belt (TAPE 2) (See Fig. 10-4)

1. Remove the main belt (E1) x 1 pc., from the motor side.
2. Remove the FF/REW belt (E2) x 1 pc.

How to remove the motor (See Fig. 10-5)

1. Remove the screws (F1) x 2 pcs., to remove the motor.

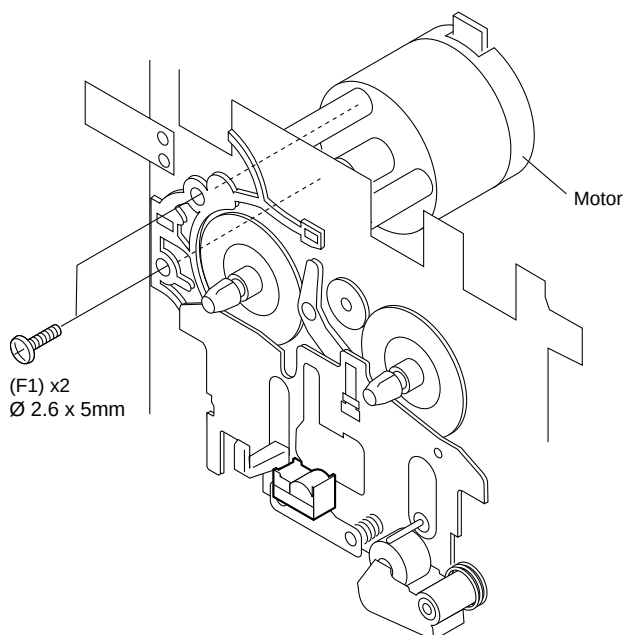


Figure 10-5

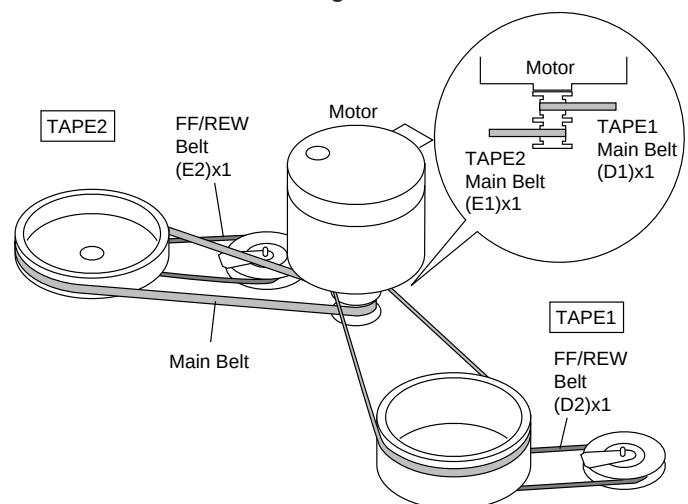


Figure 10-4

CD MECHANISM SECTION

Perform steps 1, 2, 3, 9, 12 and 13 of the disassembly method to remove the CD mechanism.

How to remove the loading motor

(See Fig. 11-1)

1. Bend the hooks (A1) x 5 pcs., to remove the loading motor.

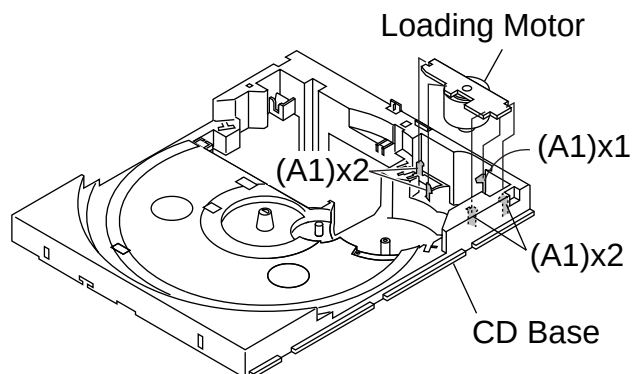


Figure 11-1

How to remove the pickup (See Fig. 11-2)

1. Remove the screws (B1) x 2 pcs., to remove the shaft (B2).
2. Remove the stop washer (B3) x 1 pc., to remove the gear (B4).
3. Remove the pickup.

Note

After removing the connector for the optical pickup from the connector wrap the conductive aluminium foil around the front end of connector so as to protect the optical pickup from electrostatic damage.

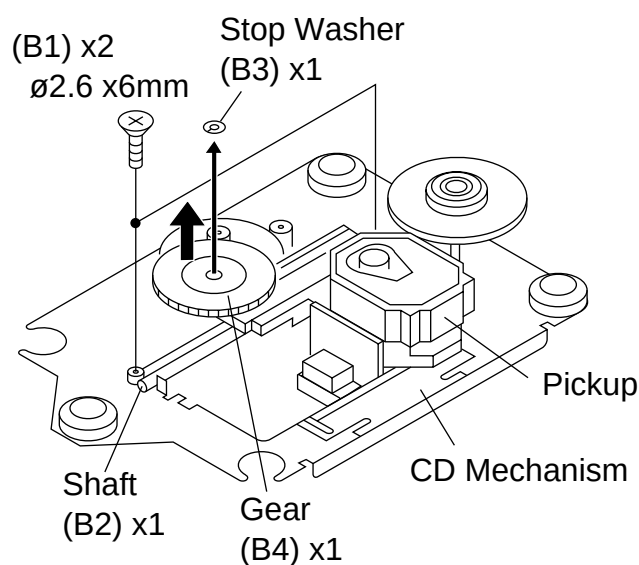


Figure 11-2

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2111	Tape 1: Over 80 g Tape 2: Over 80 g

• Torque Check

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 80 g. cm	30 to 80 g.cm
Fast forward: TW-2231	—	70 to 180 g.cm
Rewind: TW-2231	—	70 to 180 g.cm

• Tape Speed

	Test Tape	Adjusting Point	Specified Value	Instrument Connection
Normal speed	MTT-111	Variable Resistor in motor.	3,000 ± 30 Hz	Speaker terminal (Load resistance: 6 ohms)

TAPE MECHANISM

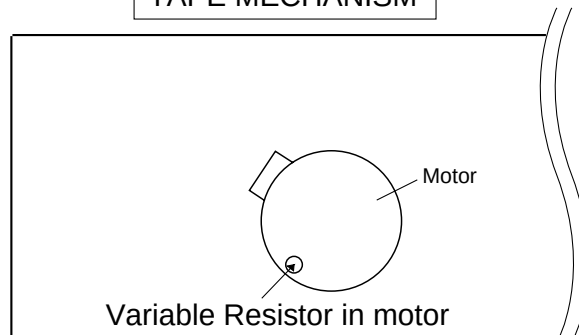


Figure 11-3

CD-BA120/125

TUNER SECTION

fL: Low-range frequency

fH: High-range frequency

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
AM IF	450 kHz	1,720 kHz	T351	*1
AM Band Coverage	—	530 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	(fL): T303	*1

*1. Input: Antenna, Output: TP302

*2. Input: Antenna, Output: TP301

• FM RF

Signal generator: 1 kHz, 22.5 kHz dev., FM modulated

Test Stage	Frequency	Frequency Display	Serring/ Adjusting Point	Instrument Connection
FM Band Coverage	—	87.50 MHz	T301(fL): 3.4 V ± 0.1V	*1
FM RF	98.00 MHz (10-30 dB)	98.00 MHz	L312	*2

*1. Input: Antenna, Output: TP301

*2. Input: Antenna, Output: Speaker terminal

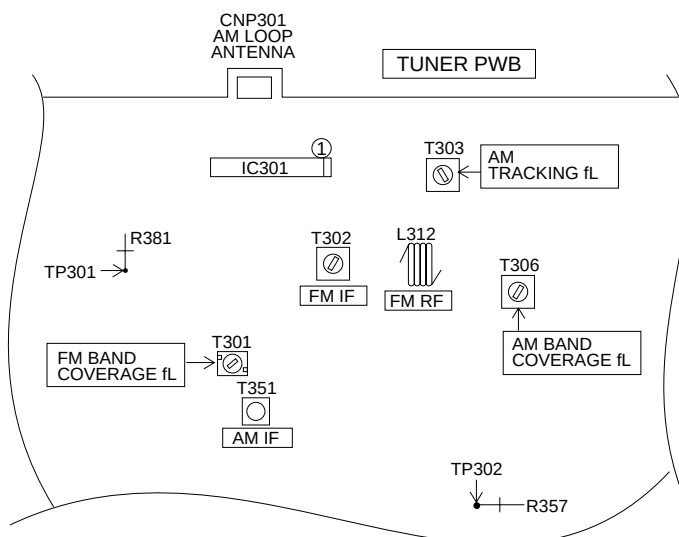


Figure 12-1 ADJUSTMENT POINT

CD SECTION

• Adjustment

Since this CD system incorporates the following automatic adjustment functions, readjustment is not needed when replacing the pickup. Therefore, different PWBs and pickups can be combined freely.

Each time a disc is changed, these adjustments are performed automatically. Therefore, playback of each disc can be performed under optimum conditions.

Items adjusted automatically

- Offset adjustment (The offset voltage between the head amplifier output and the VREF reference voltage is compensated inside the IC.)
 - * Focus offset adjustment
 - * Tracking offset adjustment
- Tracking balance adjustment (waveform drawing 12-2 EFBL)
- Gain adjustment (The gain is compensated inside the IC so that the loop gain at the gain crossover frequency will be 0dB.)
 - * Focus gain adjustment
 - * Tracking gain adjustment

CD ERROR CODE DESCRIPTION

Error	State Code
0001 0002	[Servo System Error] Cannot detect Pickup-in SW DSP access error
0101 0103	[Error during close operation] Open/Close SW Low → High not functioning Open/Close SW High → Low not functioning
0201 0203	[Error during open operation] Open/Close SW Low → High not functioning Open/Close SW High → Low not functioning
0302 0306 0307 0308	[Error during skip operation] Pickup-in SW is not detected During Disc 1 search, Open/Close SW or Clamp SW or Disc SW do not change to low. Clamp SW Low → High not functioning Clamp SW High → Low not functioning

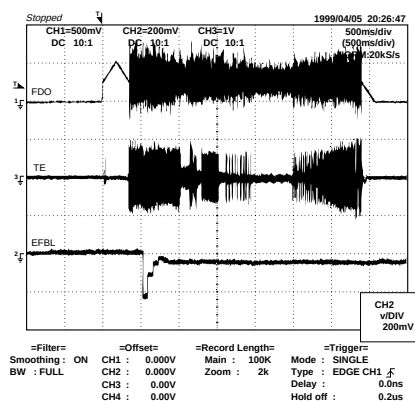


Figure 12-2

NOTES ON SCHEMATIC DIAGRAM

- **Resistor:**
To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.
- **Capacitor:**
To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
(CH), (TH), (RH), (UJ): Temperature compensation
(ML): Mylar type
(P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
 1. In the tuner section,
() indicates AM
< > indicates FM stereo
 2. In the main section, a tape is being played back.
 3. In the deck section, a tape is being played back.
() indicates the record state.
 4. In the power section, a tape is being played back.
 5. In the CD section, the CD is stopped.
- Parts marked with "△" (□ = = = □) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
SW1	OPEN/CLOSE	ON—OFF
SW2	CLAMP	ON—OFF
SW3	DISC NUMBER	ON—OFF
SW4	PICKUP IN	ON—OFF
SW701	POWER	ON—OFF
SW702	CLOCK	ON—OFF
SW703	TIMER/SLEEP	ON—OFF
SW709	DISC SKIP	ON—OFF
SW710	OPEN/CLOSE	ON—OFF
SW711	X-BASS/DEMO/EQUALIZER	ON—OFF
SW712	VOLUME UP	ON—OFF
SW713	VOLUME DOWN	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW714	CD	ON—OFF
SW715	TAPE	ON—OFF
SW716	TUNING /TIME DOWN	ON—OFF
SW717	MEMORY/SET	ON—OFF
SW718	REWIND	ON—OFF
SW719	FAST FORWARD	ON—OFF
SW720	PLAY/REPEAT	ON—OFF
SW721	STOP	ON—OFF
SW723	REC/PAUSE	ON—OFF
SW725	TUNING/TIME UP	ON—OFF
SW725	TUNER (BAND)	ON—OFF

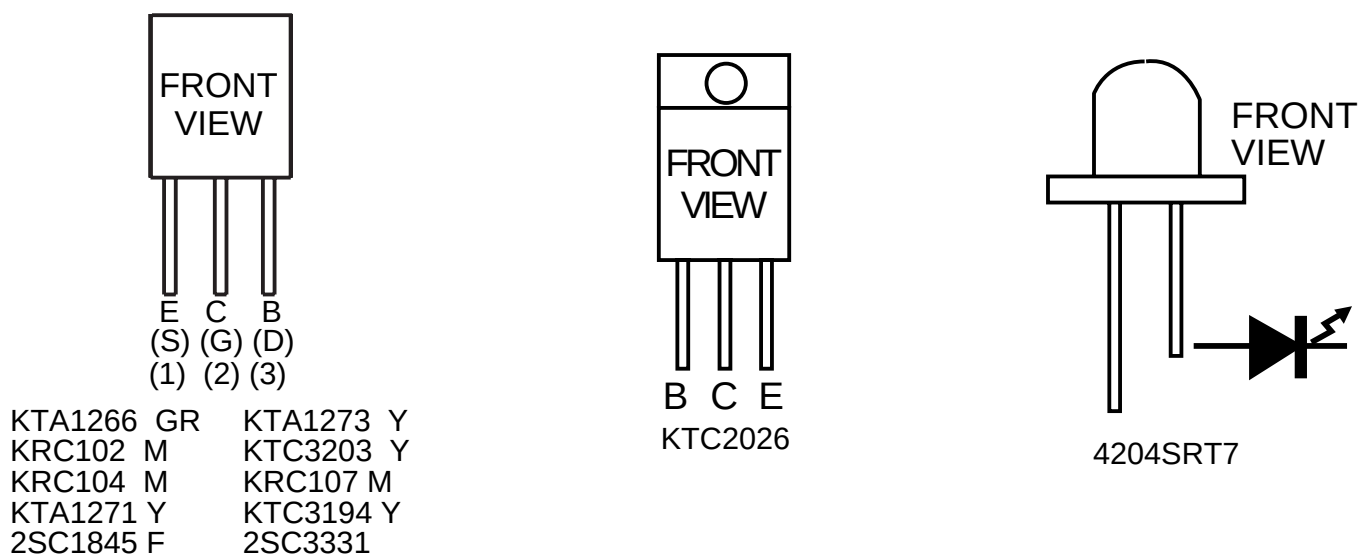
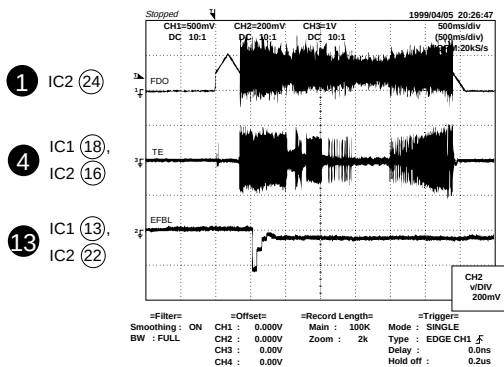
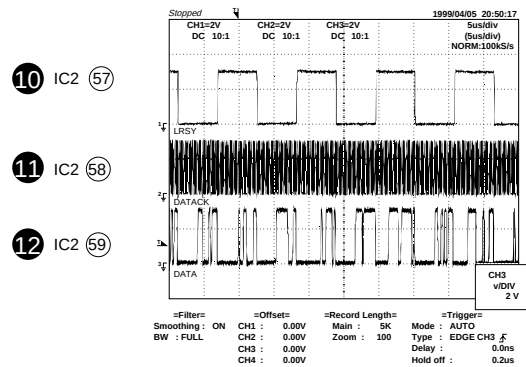
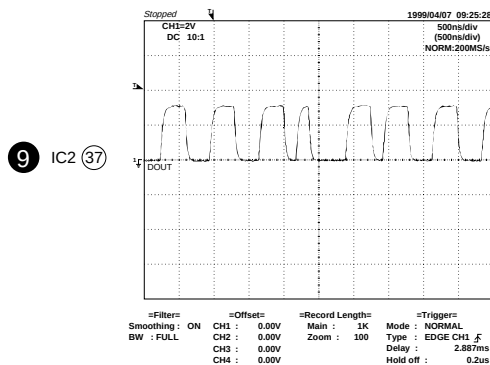
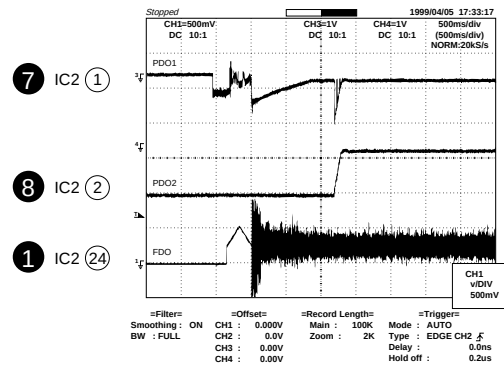
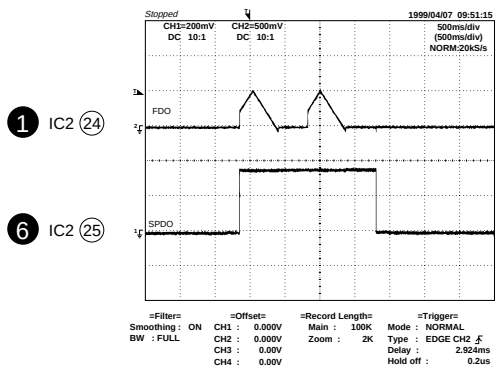
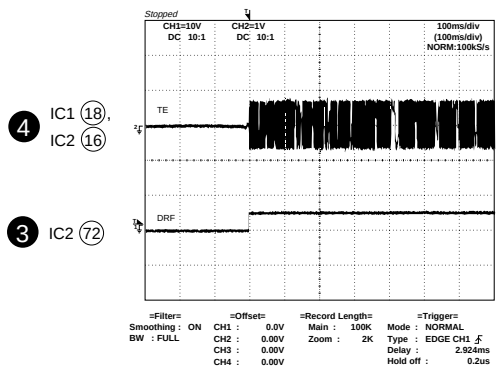
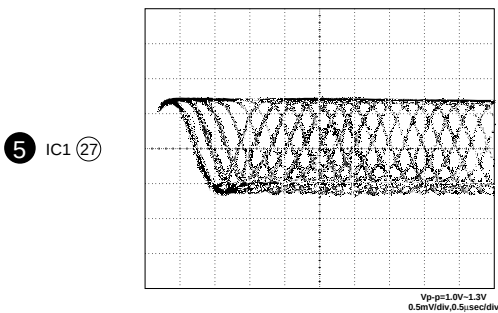
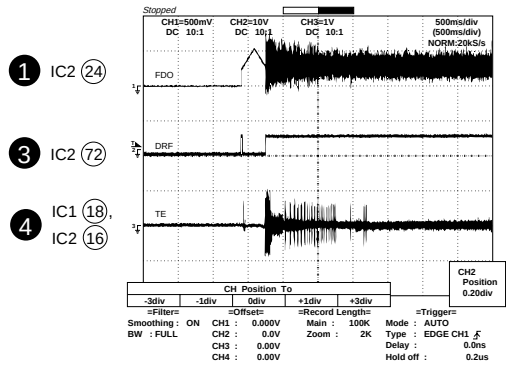
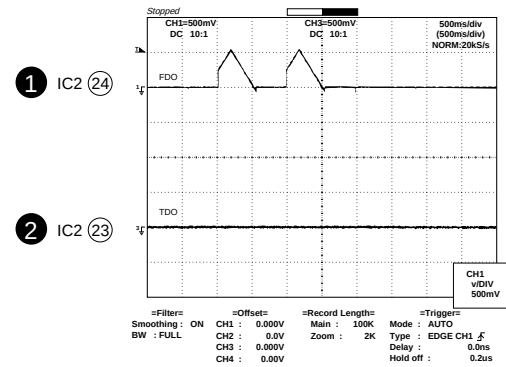


Figure 13 TYPES OF TRANSISTOR AND LED

WAVEFORMS OF CD CIRCUIT



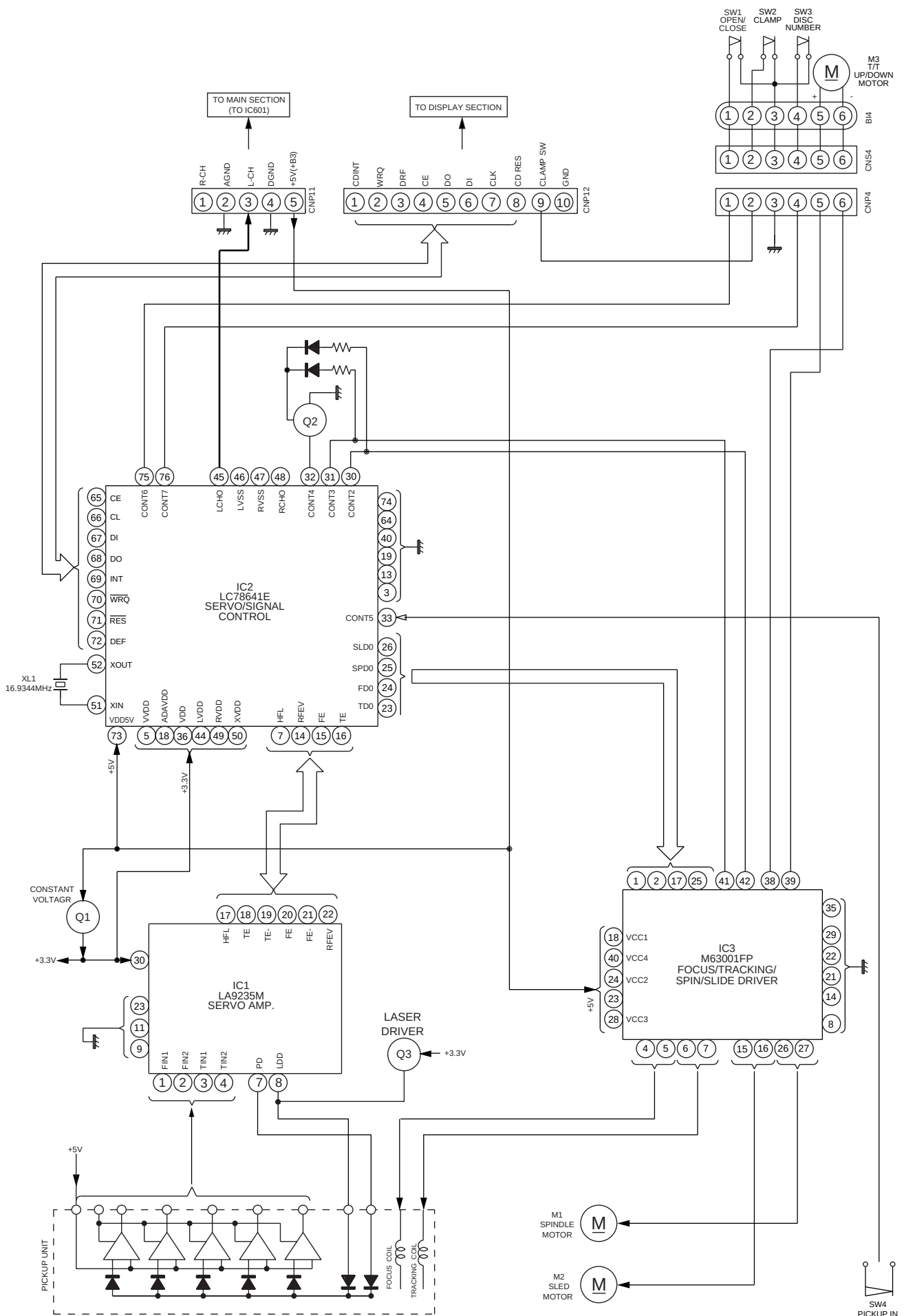


Figure 15 BLOCK DIAGRAM (1/3)

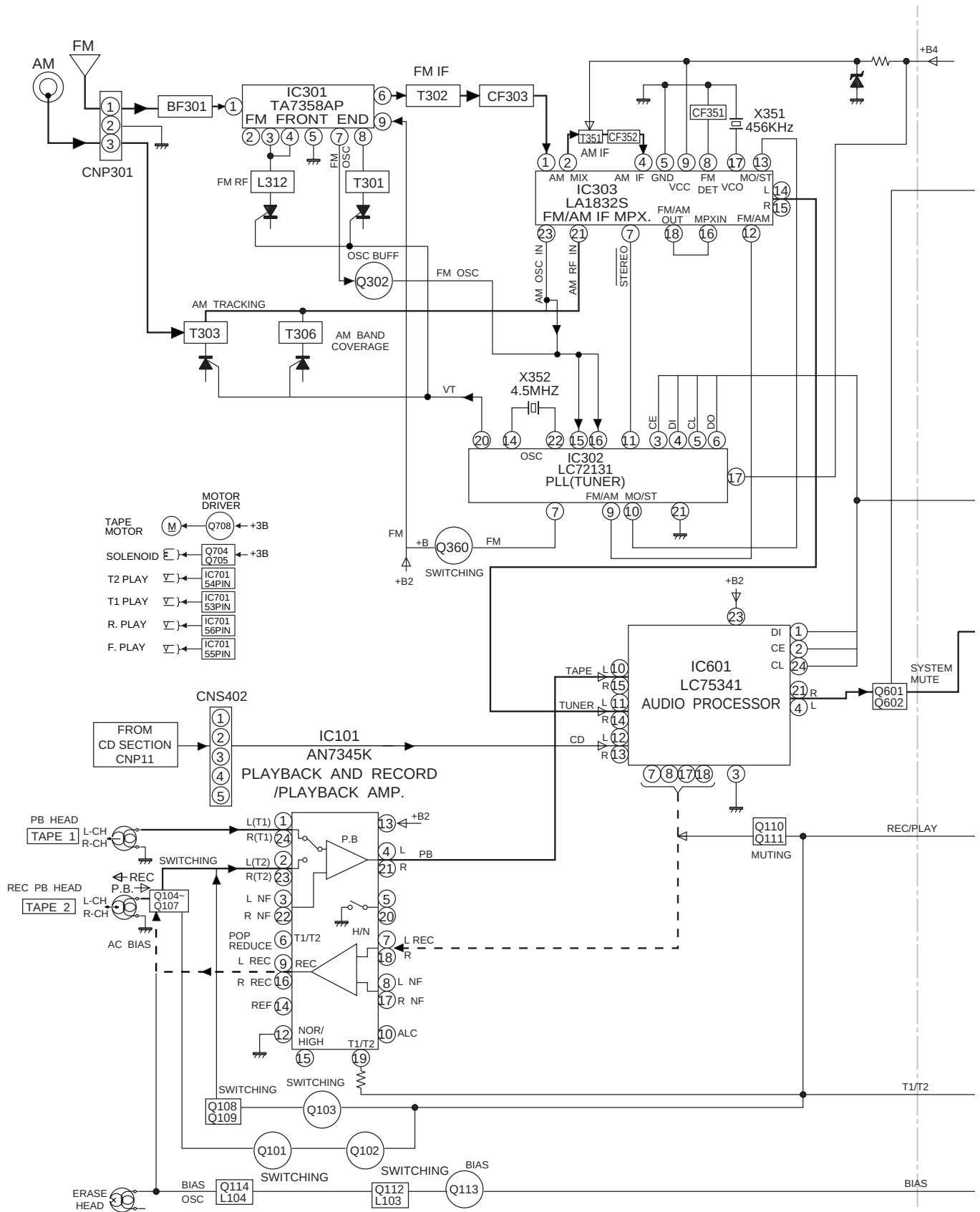


Figure 16 BLOCK DIAGRAM (2/3)

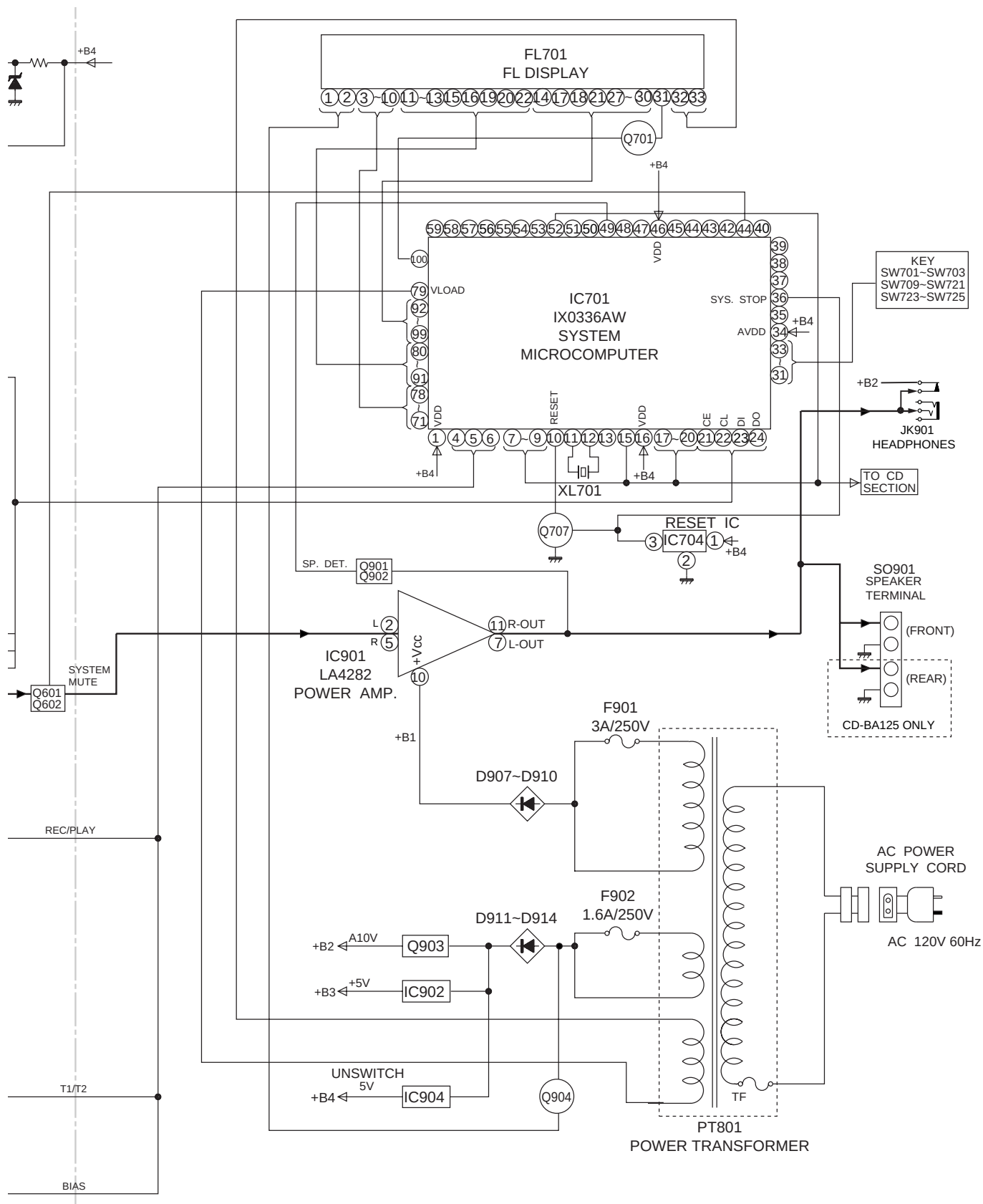
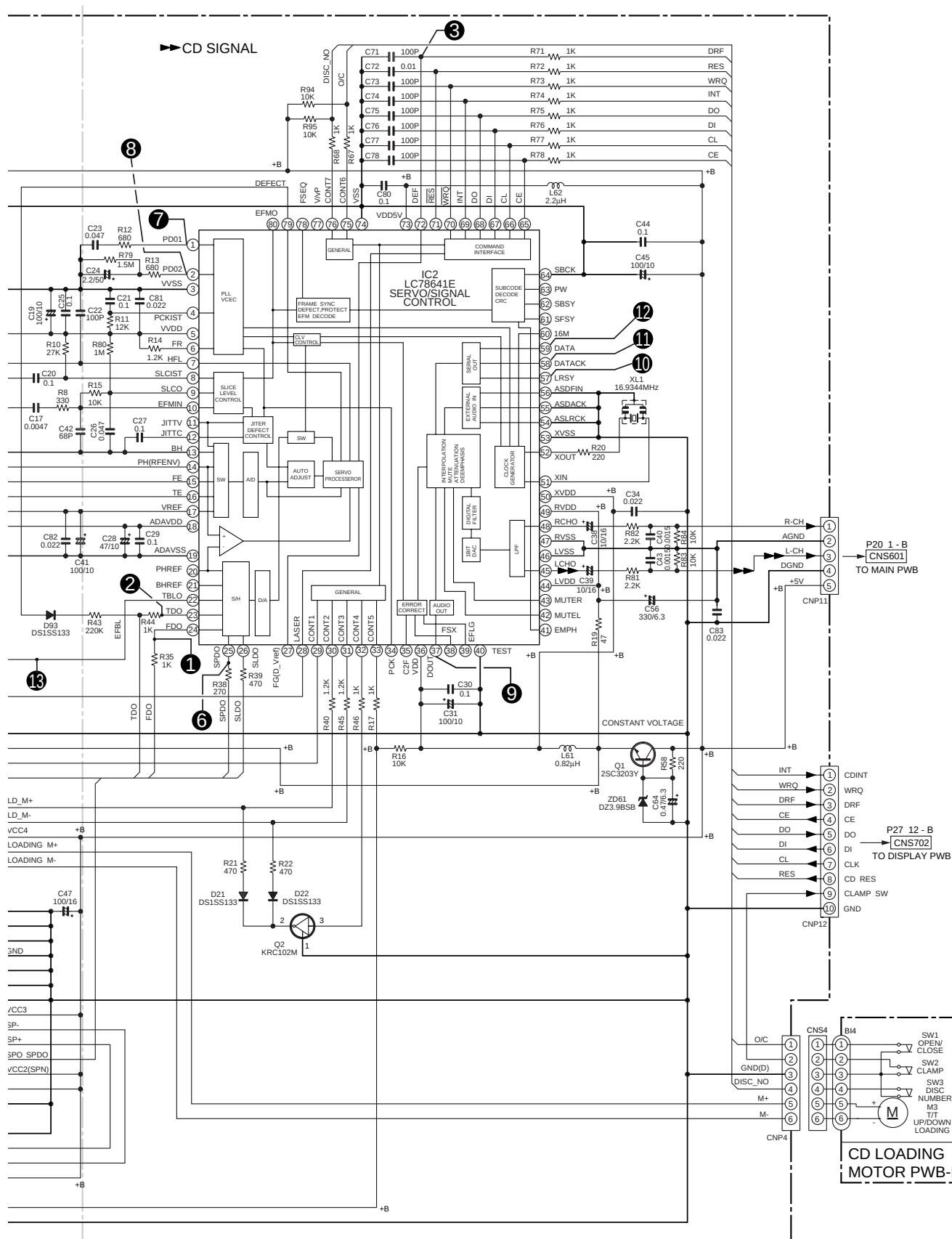


Figure 17 BLOCK DIAGRAM (3/3)





- The numbers 1 to 13 are waveform numbers shown in page 14.

Figure 19 SCHEMATIC DIAGRAM (2/10)

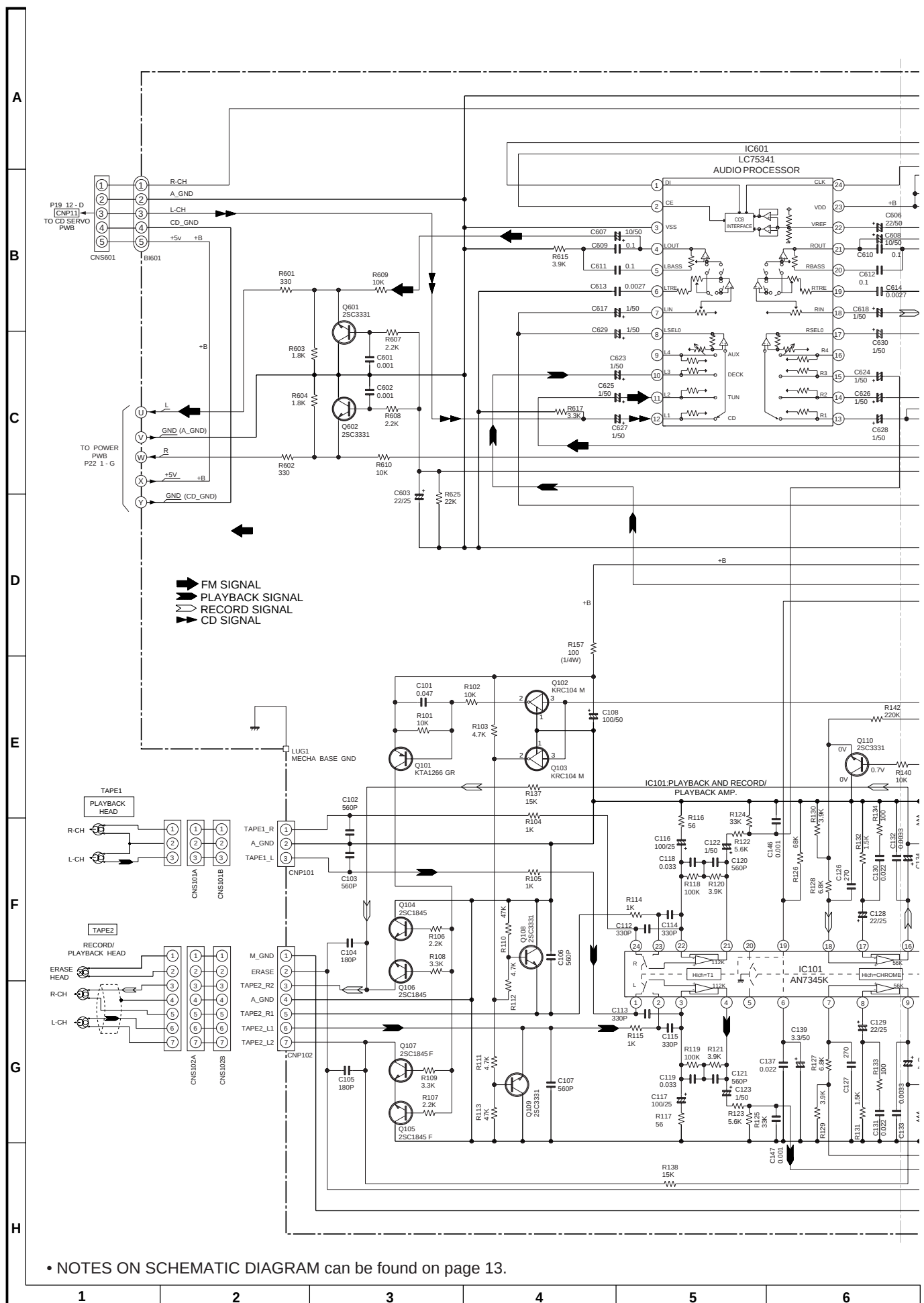


Figure 20 SCHEMATIC DIAGRAM (3/10)

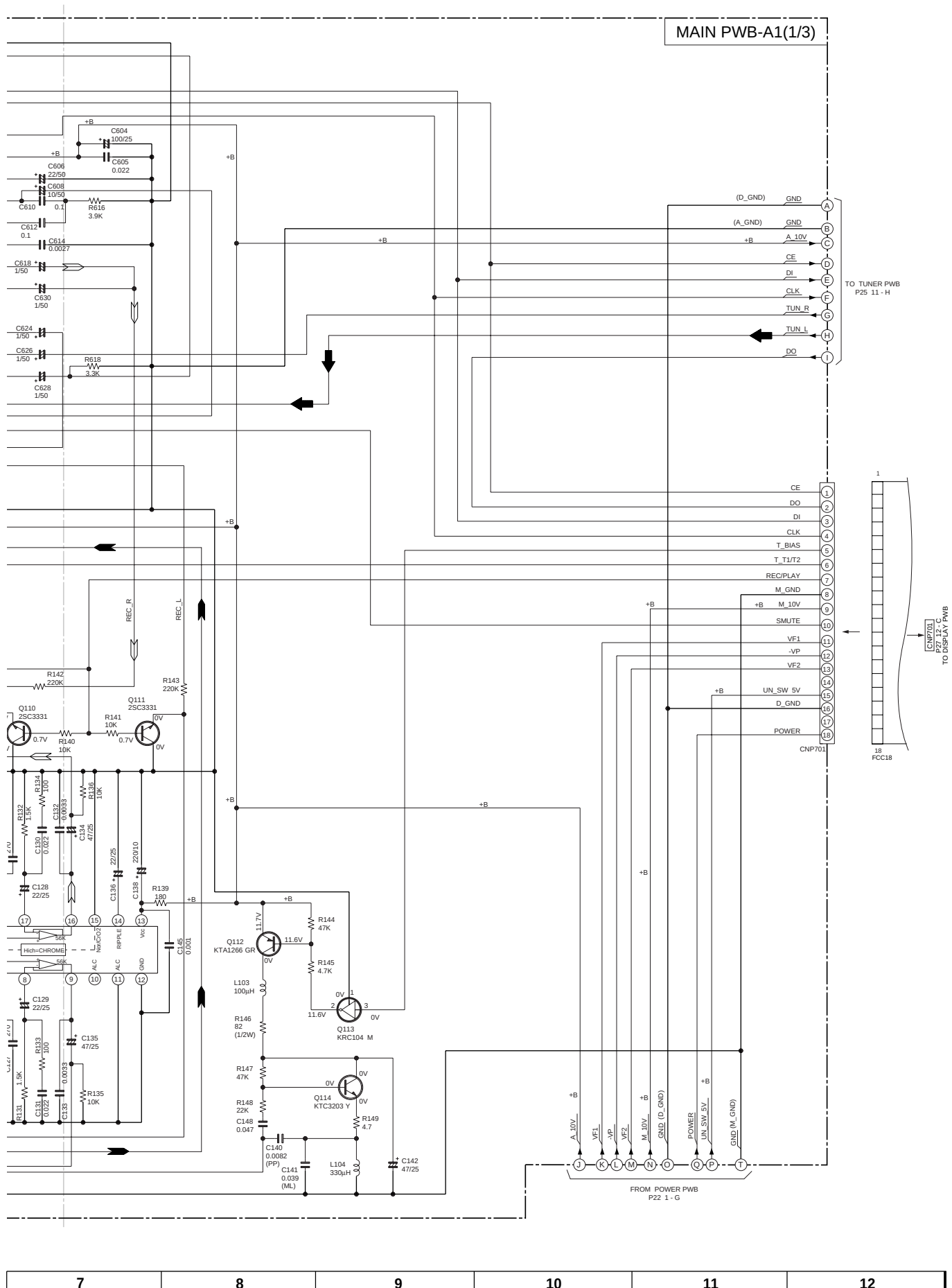


Figure 21 SCHEMATIC DIAGRAM (4/10)

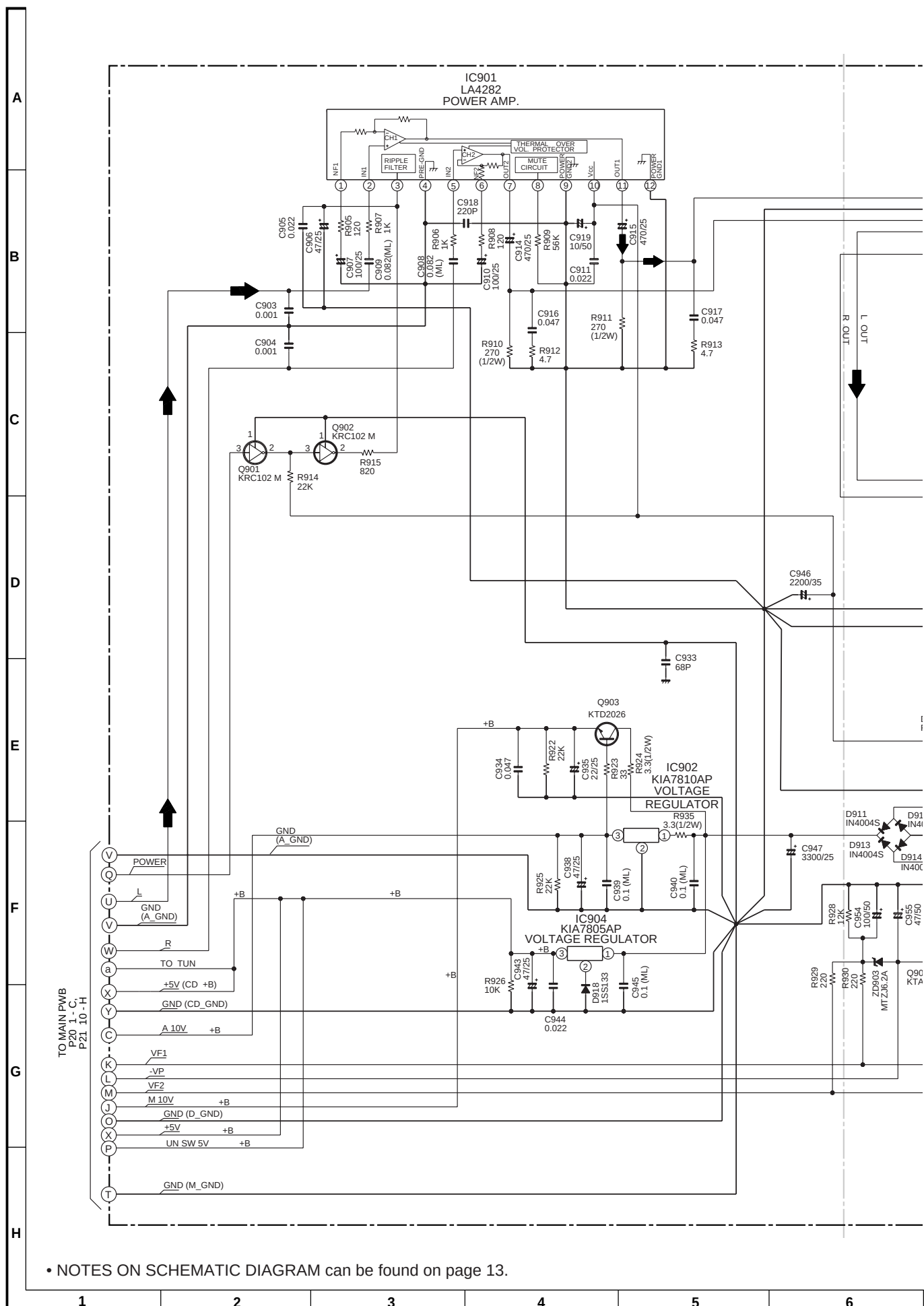


Figure 22 SCHEMATIC DIAGRAM (5/10)

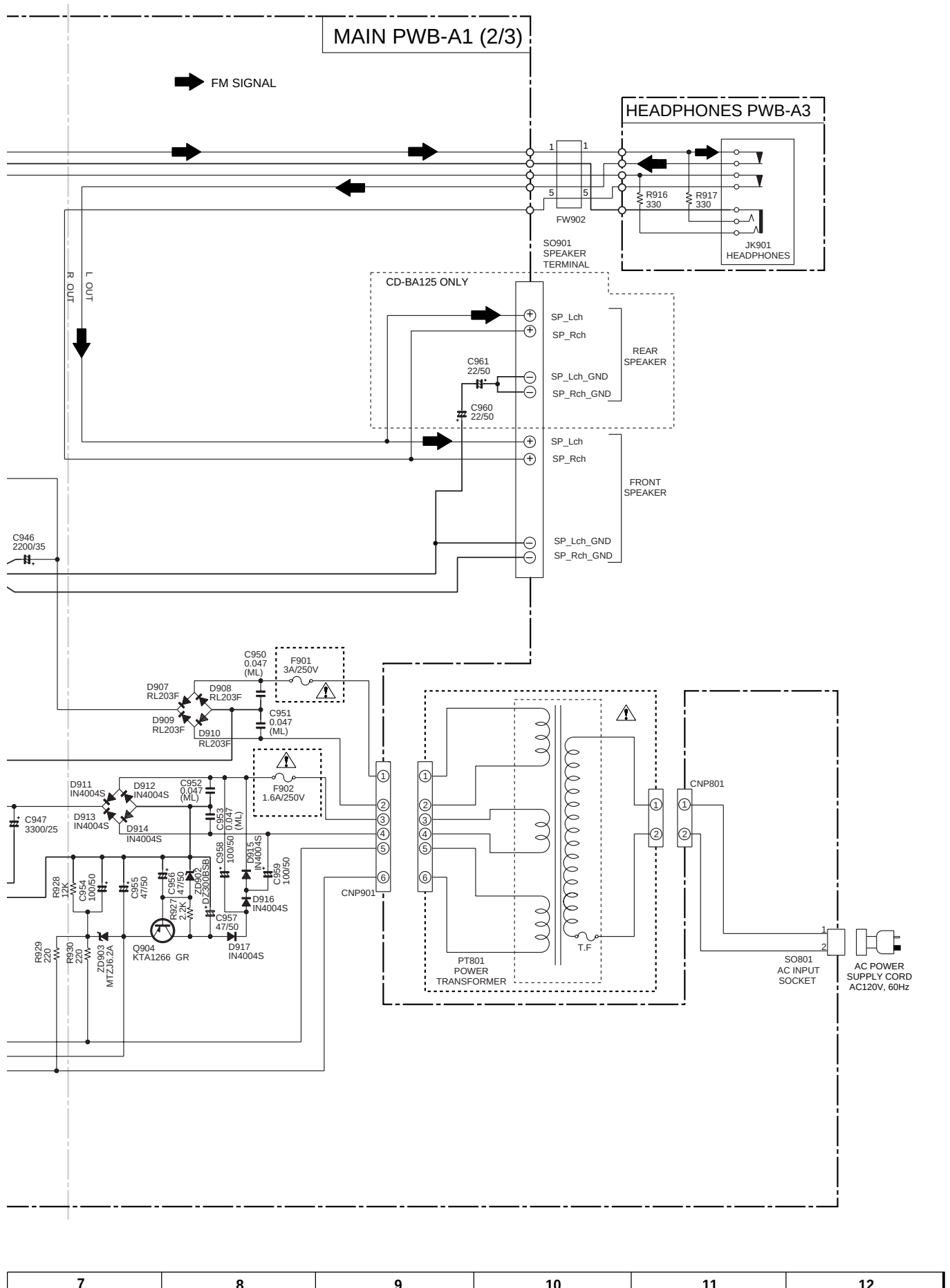


Figure 23 SCHEMATIC DIAGRAM (6/10)

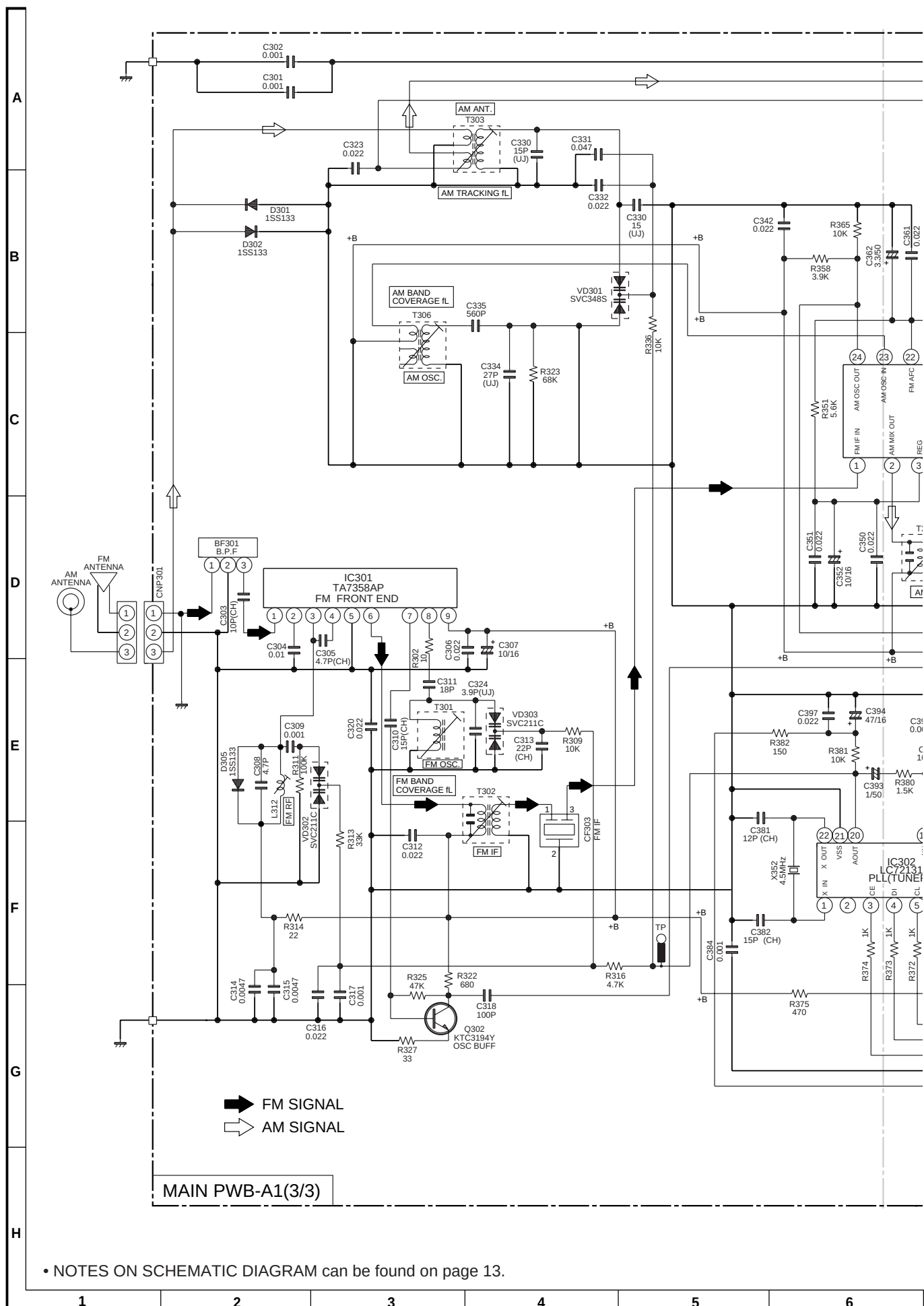


Figure 24 SCHEMATIC DIAGRAM (7/10)

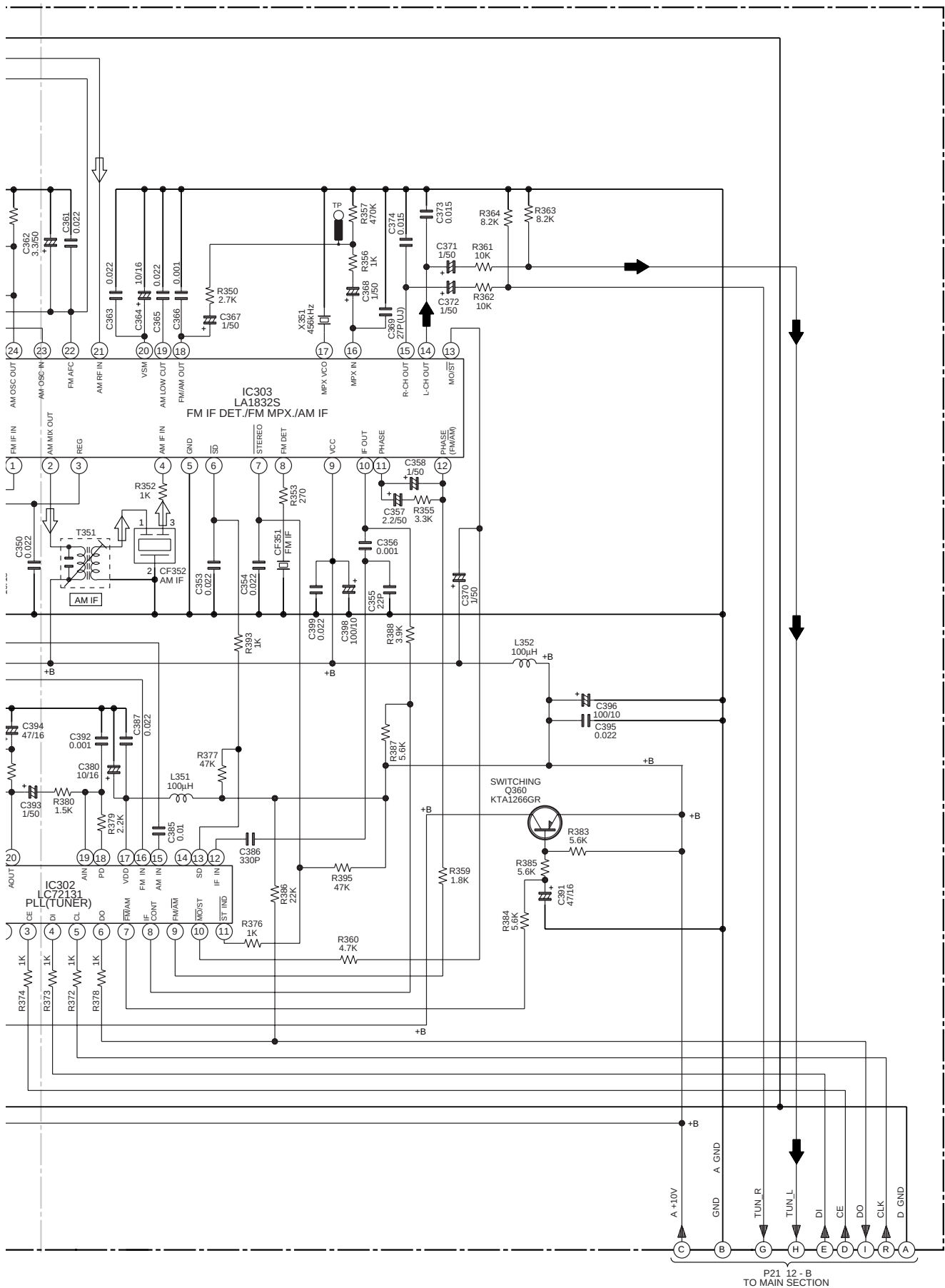


Figure 25 SCHEMATIC DIAGRAM (8/10)





- 28 -

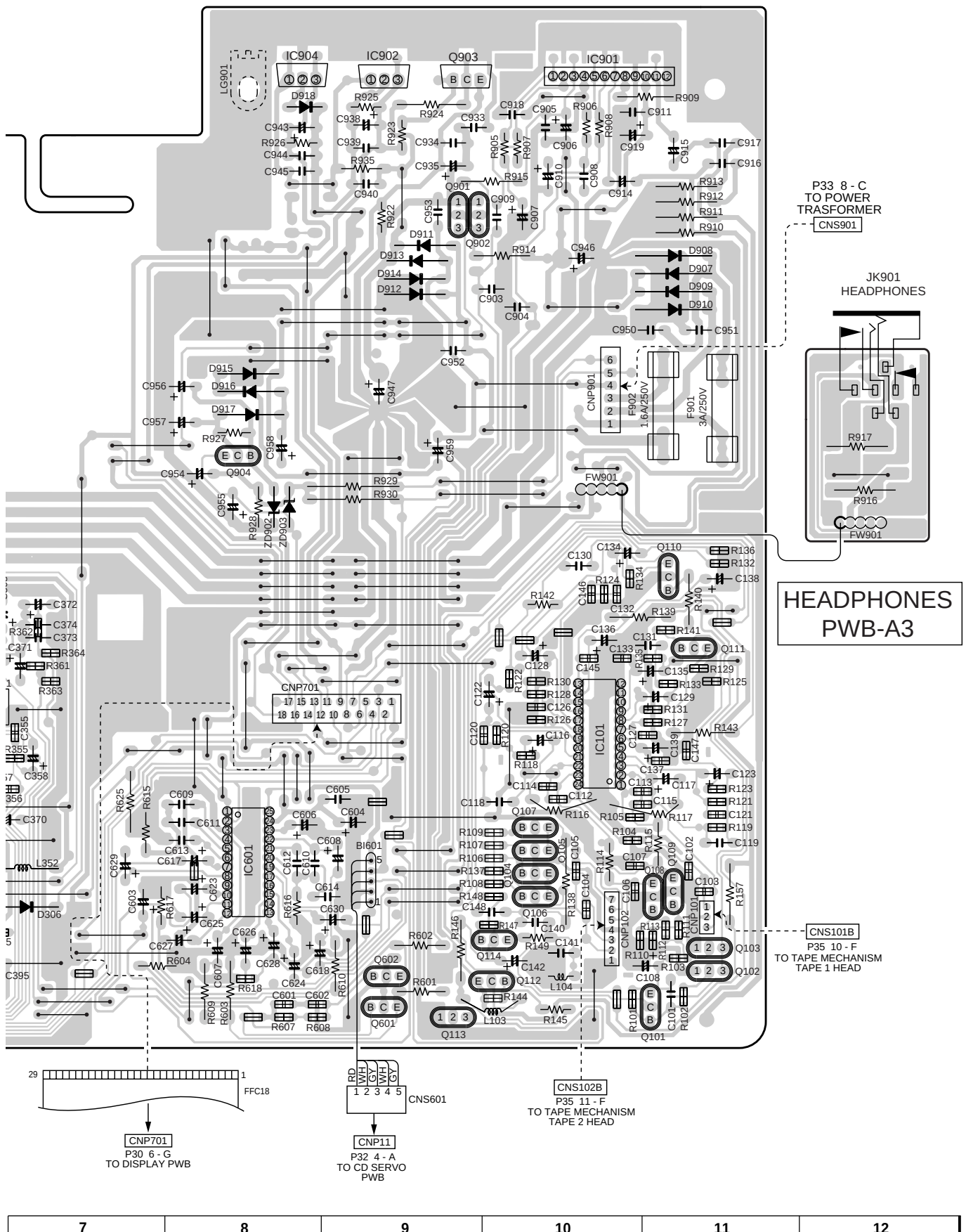


Figure 29 WIRING SIDE OF P.W.BOARD (2/6)

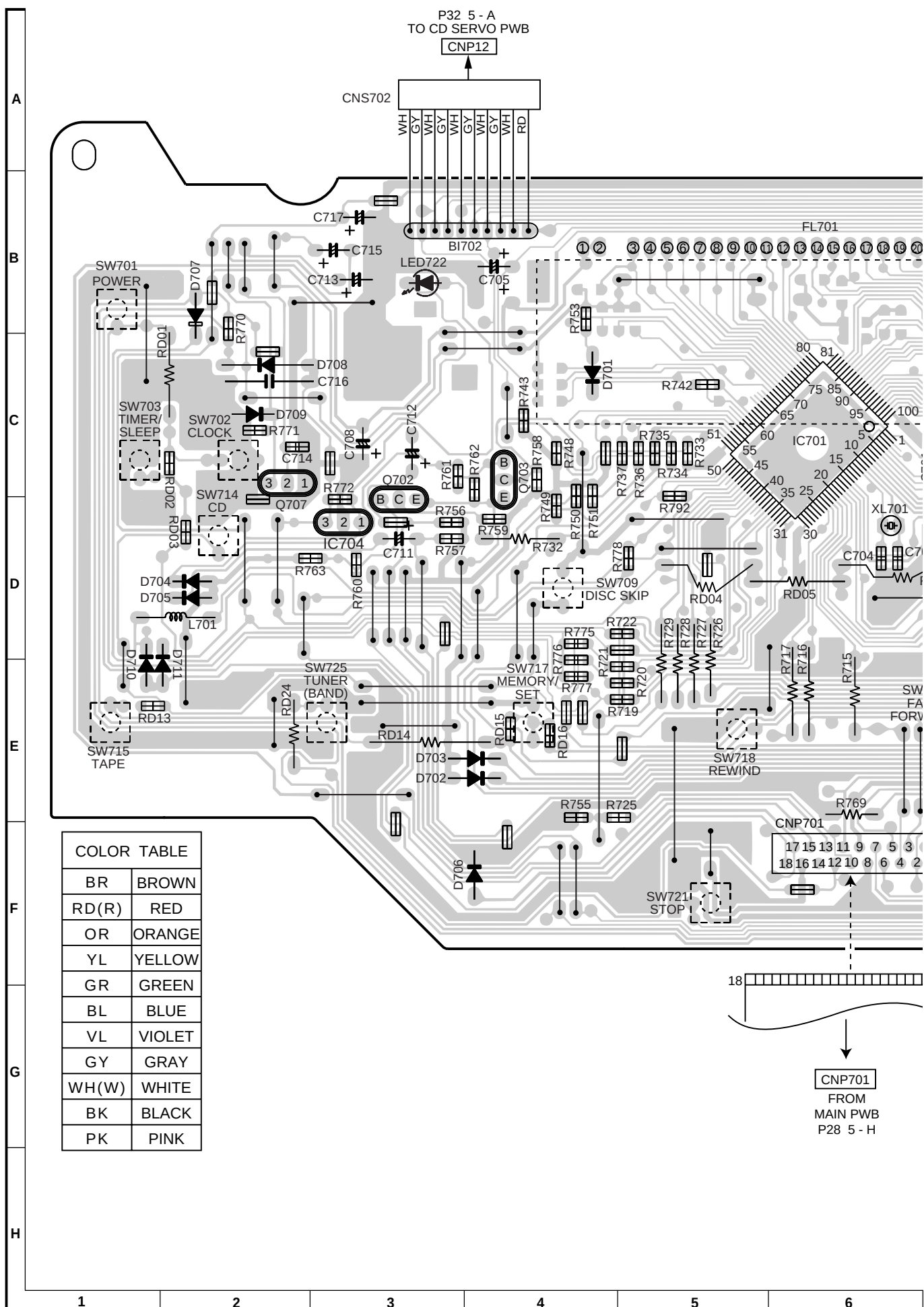


Figure 30 WIRING SIDE OF P.W.BOARD (3/6)

DISPLAY PWB-A2

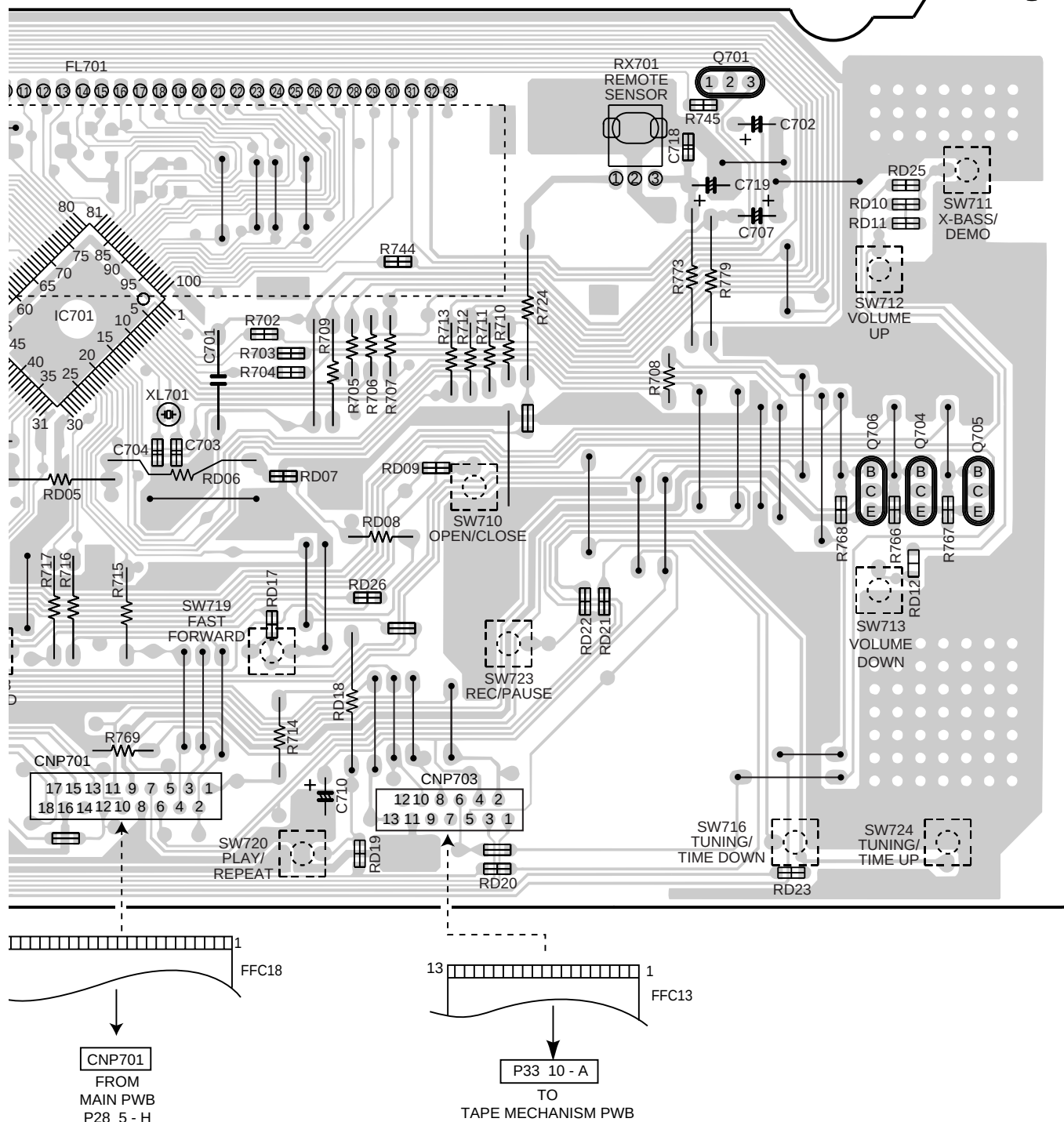


Figure 31 WIRING SIDE OF P.W.BOARD (4/6)

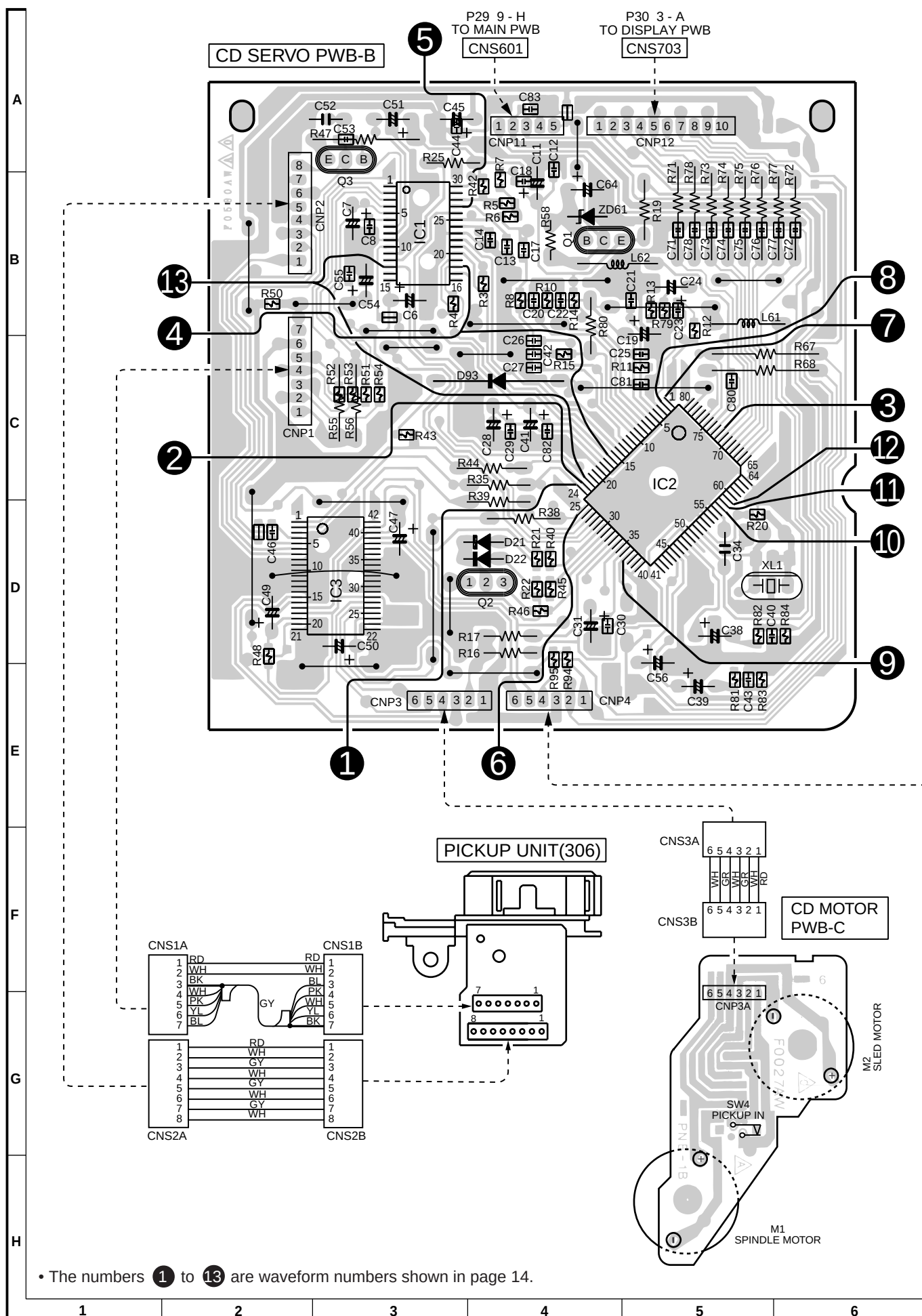


Figure 32 WIRING SIDE OF P.W.BOARD (5/6)

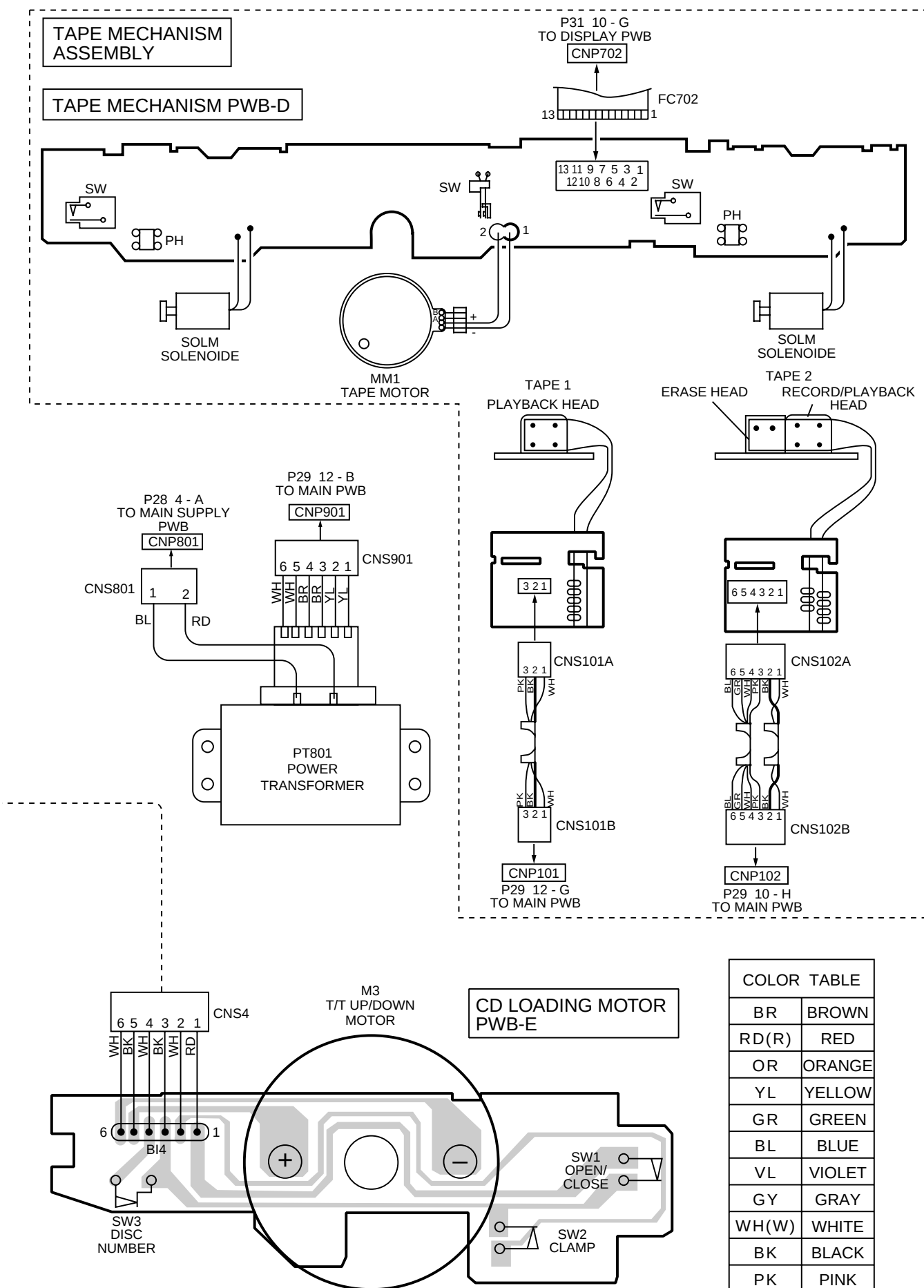


Figure 33 WIRING SIDE OF P.W.BOARD (6/6)

VOLTAGE

IC1	
PIN NO.	VOLTAGE
1	1.6V
2	1.6V
3	1.6V
4	1.6V
5	1.6V
6	1.6V
7	0V
8	2.6V
9	0V
10	0V
11	0V
12	3.3V
13	1.6V
14	1.6V
15	1.6V
16	0V
17	0V
18	1.6V
19	1.6V
20	1.6V
21	1.6V
22	1.6V
23	0V
24	1.6V
25	0V
26	0V
27	0V
28	1.6V
29	1.6V
30	3.3V

IC3	
PIN NO.	VOLTAGE
1	1.6V
2	1.6V
3	1.8V
4	2.1V
5	2.1V
6	2.1V
7	2.1V
8	0V
9	0V
10	0V
11	0V
12	0V
13	0V
14	0V
15	2.1V
16	2.1V
17	1.6V
18	4.9V
19	3.5V
20	1.6V
21	0V
22	0V
23	4.9V
24	4.9V
25	1.6V
26	2.1V
27	2.1V
28	1.9V
29	0V
30	0V
31	0V
32	0V
33	0V
34	0V
35	0V
36	4.2V
37	0V
38	2.1V
39	2.1V
40	4.9V
41	2.1V
42	2.1V

IC2	
PIN NO.	VOLTAGE
1	0.7V
2	0V
3	0V
4	0V
5	3.3V
6	2.4V
7	0V
8	0V
9	1.6V
10	0V
11	4.7V
12	1.7V
13	0V
14	1.6V
15	1.6V
16	1.6V
17	1.6V
18	3.3V
19	0V
20	1.6V
21	1.6V
22	1.6V
23	1.6V
24	1.6V
25	1.6V
26	1.6V
27	1.6V
28	0V
29	0V
30	2.1V
31	2.1V
32	0V
33	3.3V
34	3.5V
35	3.3V
36	3.3V
37	3.3V
38	1.6V
39	1.6V
40	0V
41	0V
42	3.3V
43	3.3V
44	3.0V
45	1.5V
46	0V
47	0V
48	1.5V
49	3.0V
50	3.3V
51	1.8V
52	3.0V
53	0V
54	0V
55	0V
56	0V
57	1.7V
58	3.3V
59	0V
60	3.0V
61	1.6V
62	0V
63	2.4V
64	0V
65	0V
66	0V
67	0V
68	4.8V
69	4.9V
70	4.9V
71	4.6V
72	0V
73	4.9V
74	0V
75	0V
76	0V
77	3.2V
78	0V
79	0V
80	3.4V

IC101	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0.55V
4	2.16V
5	0V
6	1.25V
7	0V
8	0.58V
9	3.17V
10	3.55V
11	0V
12	0V
13	4.72V
14	4.37V
15	0V
16	3.67V
17	0.38V
18	0V
19	0V
20	0V
21	2.16V
22	0.55V
23	0V
24	0V

IC301	
PIN NO.	VOLTAGE
1	0.8V (0V)
2	1.5V (0V)
3	3.6V (0.4V)
4	1.5V (0V)
5	0V (0V)
6	3.6V (0.4V)
7	2.8V (0.2V)
8	3.5V (0.3V)
9	3.6V (0.3V)

IC302	
PIN NO.	VOLTAGE
1	2.15V
2	0V
3	0V
4	0V
5	0V
6	4.83V
7	9.87V
8	4.4V
9	0V
10	0V
11	4.64V
12	2.27V
13	4.66V
14	0V
15	2.13V
16	0V
17	4.86V
18	0.73V
19	0.73V
20	6.3V
21	0V
22	2.33V

IC901	
PIN NO.	VOLTAGE
1	0V
2	0V
3	16.27V
4	0V
5	0V
6	0V
7	16.72V
8	0V
9	0V
10	34.2V
11	16.6V
12	0V

IC902	
PIN NO.	VOLTAGE
1	19.12V
2	0V
3	10.04V

IC904	
PIN NO.	VOLTAGE
1	19.12V
2	0.64V
3	5.64V

Q903	
PIN NO.	VOLTAGE
1	10.04V
2	19.05V
3	9.57V

IC704	
PIN NO.	VOLTAGE
1	4.9V
2	0V
3	4.9V

IC601	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	4.96V
5	4.96V
6	4.96V
7	4.96V
8	4.89V
9	4.78V
10	4.78V
11	4.78V
12	4.78V
13	4.78V
14	4.78V
15	4.78V
16	4.78V
17	5.1V
18	5.5V
19	5.0V
20	4.66V
21	5.03V
22	4.97V
23	10.0V
24	0V

IC701			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	4.78V	51	4.29V
2	0V	52	0V
3	5.0V	53	4.81V
4	0V	54	4.81V
5	4.69V	55	4.81V
6	4.74V	56	4.81V
7	4.75V	57	0V
8	0V	58	0V
9	4.85V	59	27.8V
10	4.30V	60	-27.8V
11	2.25V	61	0V
12	1.16V	62	0V
13	0V	63	0V
14	0V	64	0V
15	4.85V	65	0V
16	4.78V	66	0V
17	4.67V	67	-27.7V
18	0V	68	-27.7V
19	4.69V	69	-27.1V
20	0V	70	-28.2V
21	0V	71	-21.7V
22	0V	72	-18.6V
23	0V	73	-12.9V
24	4.82V	74	-24.4V
25	0V	75	-25.9V
26	0.3V	76	-15.7V
27	0V	77	-22.2V
28	0V	78	-22.3V
29	0V	79	-27.8V
30	0V	80	-18.6V
31	4.81V	81	-12.9V
32	4.81V	82	-24.4V
33	4.81V	83	-24.4V
34	4.9V	84	-27.1V
35	5.0V	85	-27.1V
36	4.9V	86	-24.4V
37	0V	87	-24.4V
38	0V	88	-27.1V
39	5.0V	89	-27.1V
40	0V	90	-24.4V
41	1.7V	91	-27.1V
42	9.45V	92	-24.4V
43	9.45V	93	-27.1V
44	9.45V	94	-24.4V
45	3.8V	95	-24.4V
46	4.89V	96	-24.4V
47	0V	97	-24.4V
48	4.89V	98	-24.4V
49	4.79V	99	-24.4V
50	4.78V	100	-24.4V

IC303	
PIN NO.	VOLTAGE
1	2.12V
2	4.78V
3	2.12V
4	2.11V
5	0V
6	4.65V
7	4.65V
8	3.02V
9	4.78V
10	4.08V
11	1.63V
12	1.13V
13	2.08V
14	1.31V
15	1.29V
16	2.07V
17	0V
18	1.43V
19	1.99V
20	1.44V
21	2.08V
22	2.08V
23	4.48V
24	3.35V

TROUBLE SHOOTING

When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.

Remove the cabinet and follow the trouble shooting instructions.

"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.

Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Do not touch the lens with the bare hand.

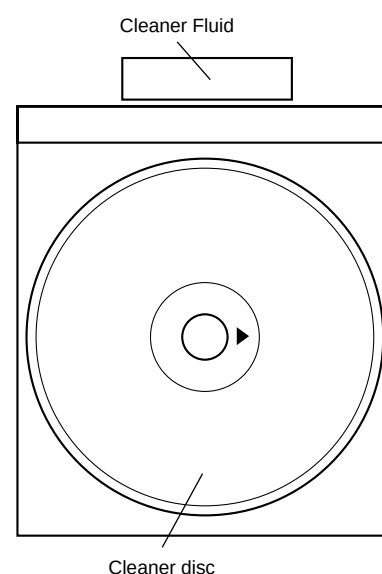
		Parts code
1.	CD optical pickup Lens cleaner disc	UDSKA0004AFZZ

HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continuous to tum, press the stop button.

CAUTION

- The CD lens cleaner should be effective for 30-50 operations, however if the brushes become worn out earlier then please the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rines with clean water and seek medical advice.
- The CD cleaner disk must not be used on car CD players or on computer CD ROM drives.
- All rights reserved.Unauthorized duplicating, broadcasting and renting this product is



When a CD cannot be played

1. "E-CD01" is displayed.

- (1) Check the power to IC2 (LC78641E), the presence of the clock signal (16.93 MHz) and the status of the RESET terminal (pin 71 on IC2).
- (2) Did the pickup move to the PICKUP-IN Switch (SW4) position?

If (1) and (2) are OK, check the system microcomputer (especially the communication line with the DSP).

2. Pressing the CD operation key is accepted, but playback does not occur.

- (1) Focus-HF system check
- (2) Tracking system check
- (3) Spin system check
- (4) PLL system check
- (5) Others

(1) Focus-HF system check

Although a CD is inserted and the cover is closed, "NO DISC" is displayed.

Press the OPEN/CLOSE switch (SW1) without inserting a disc, and try starting the playback operation.

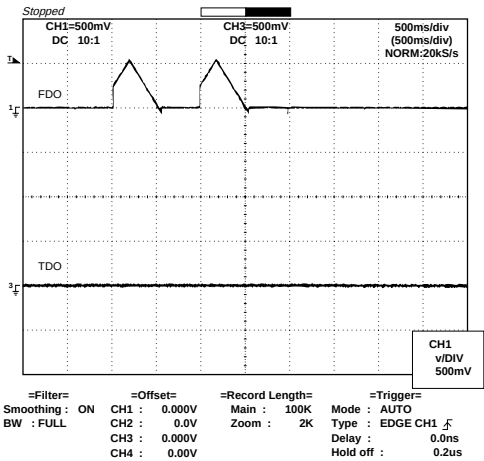


Figure 36-1

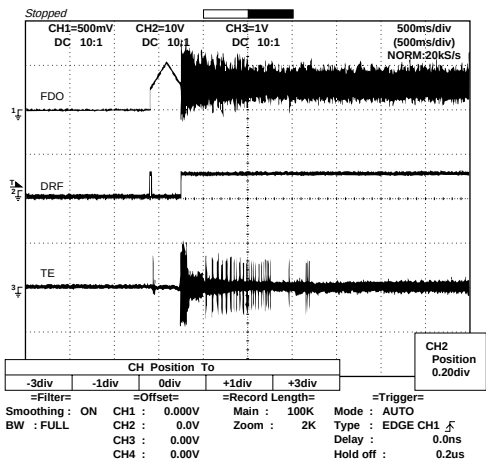
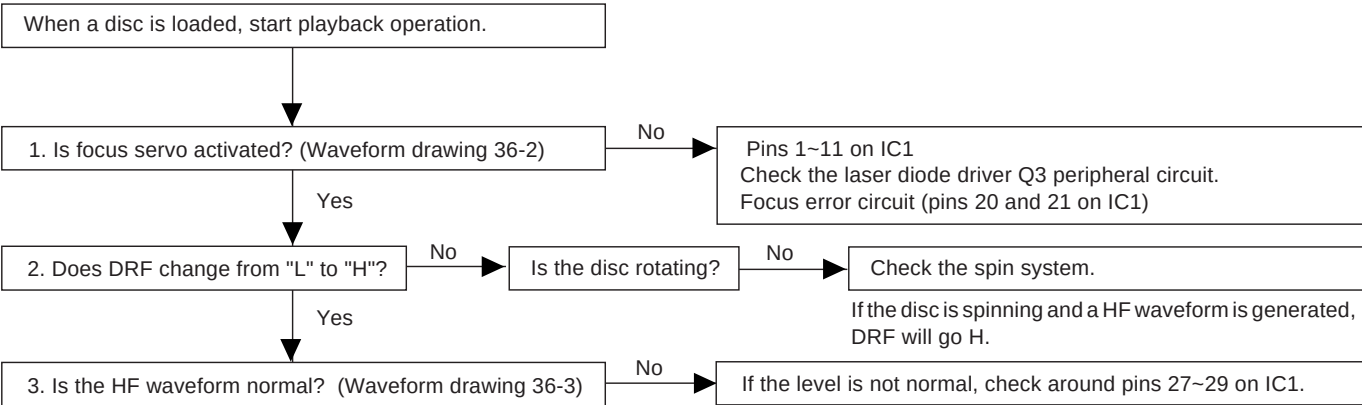
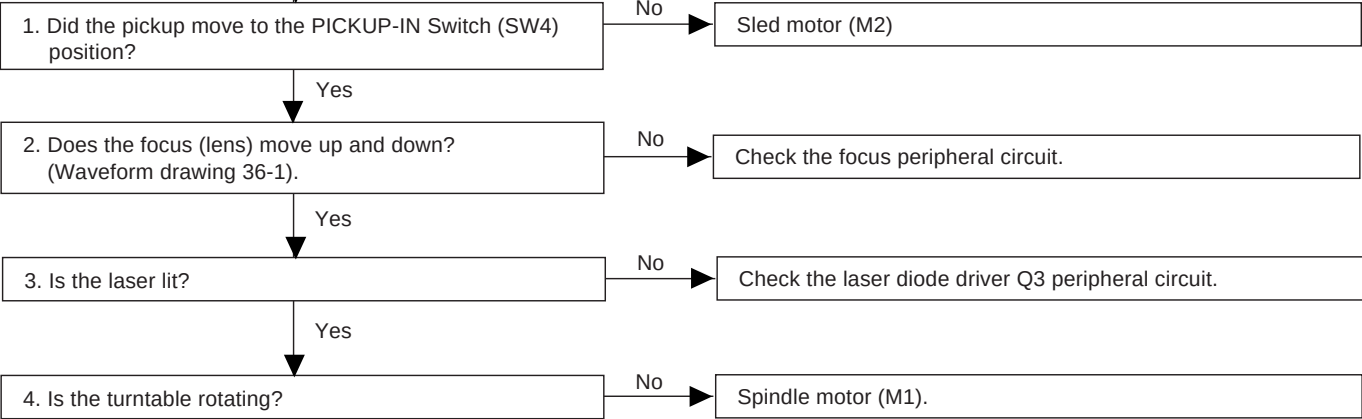


Figure 36-2

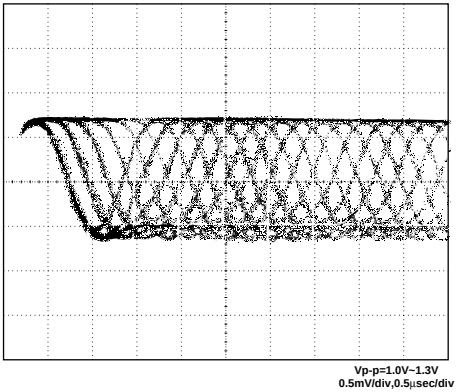


Figure 36-3

(2) Tracking system check

Check the TE waveform at pin 18 on IC1.

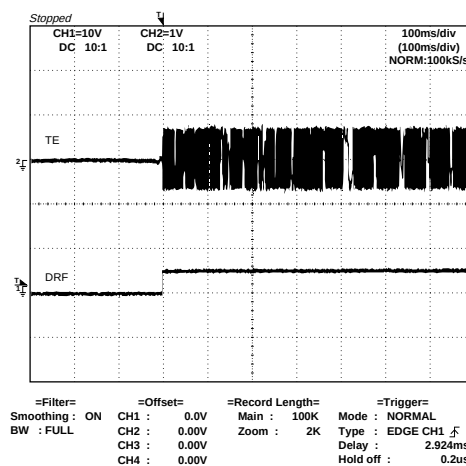
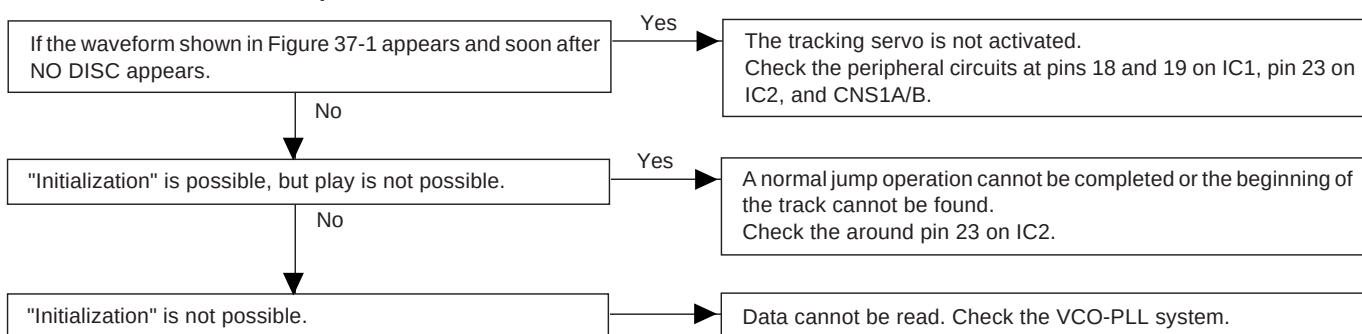


Figure 37-1

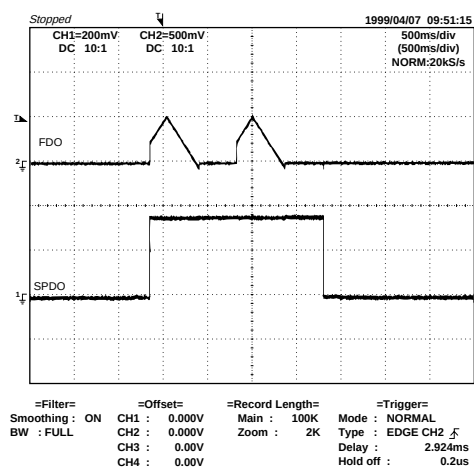
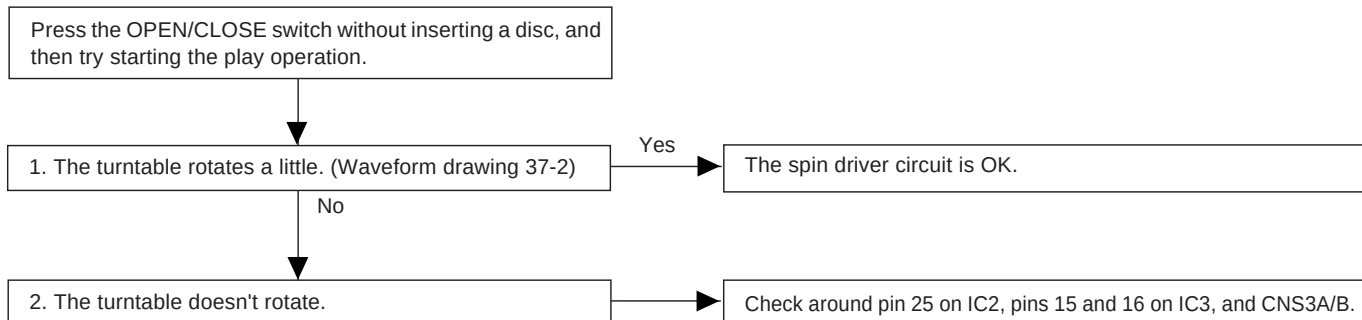
(3) Spin system check

Figure 37-2

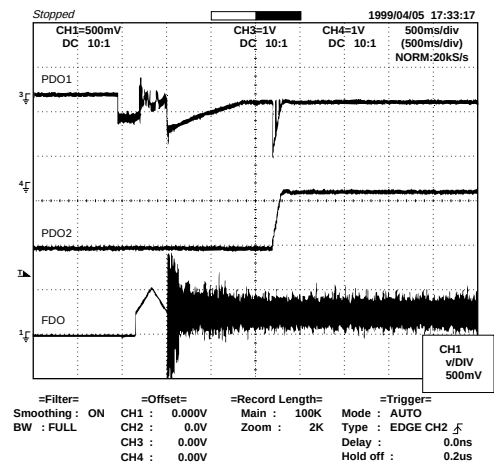
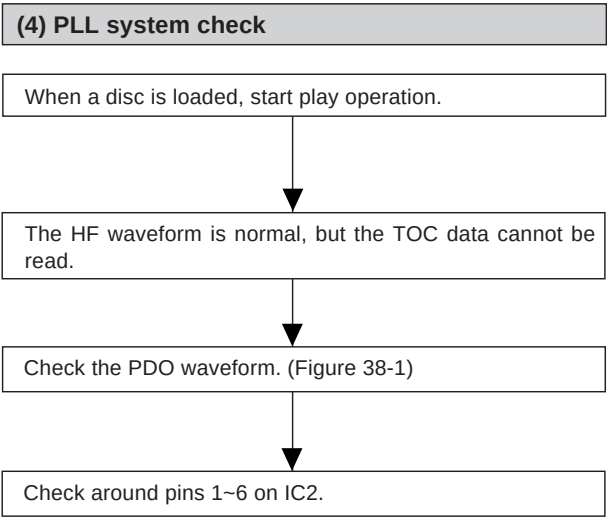


Figure 38-1

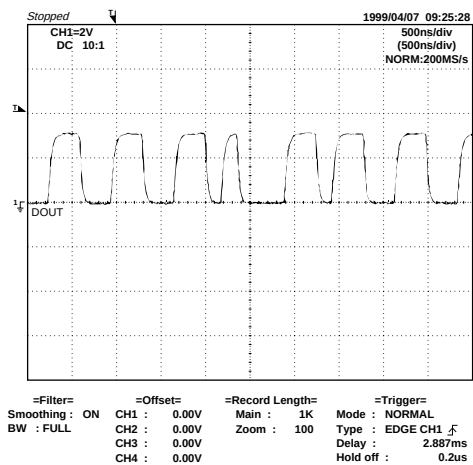
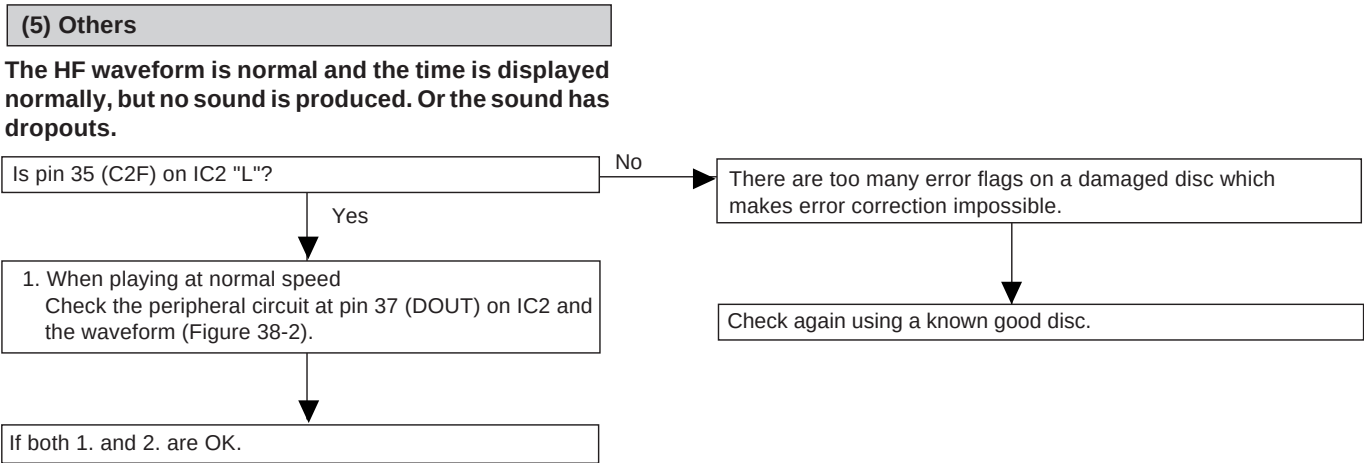
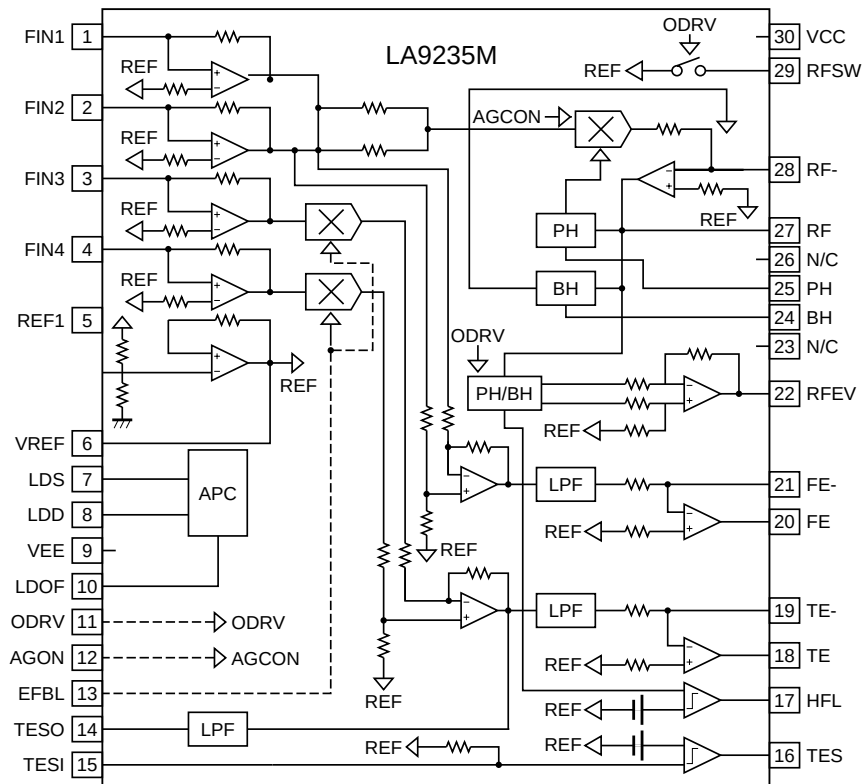


Figure 38-2

FUNCTION TABLE OF IC

IC1 VHiLA9235M/-1: Servo Amp. (LA9235M)



IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E)

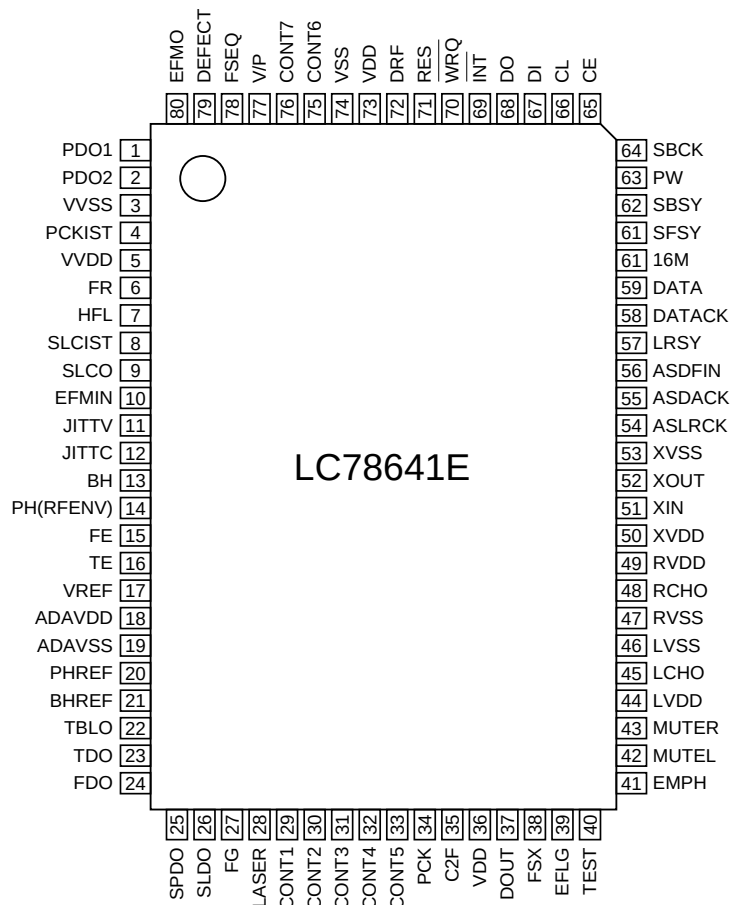


Figure 39 BLOCK DIAGRAM OF IC

IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E) (1/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
1	PDO1	Output	—	For PULL	Phase-comparison output terminal for built-in VOC control.
2	PDO2	Output	—		Phase-comparison output terminal for built-in VOC control. Rough servo : OFF, phase servo : ON.
3	VVSS	—	—		Ground terminal for built-in VCO.
4	PCKIST	AI	—		Resistor terminal for setting the PDO output current.
5	VVDD	—	—		Power terminal for built-in VCO.
6	FR	AI	—		Resistor terminal for setting the VCO frequency range.
7	HFL	Input	—	Mirror detection signal input terminal.	
8	SLCIST	AI	—	For slice level control	Resistance connection terminal for current adjustment of SLCO output.
9	SLCO	Output	—		Control output.
10	EFMIN	Input	—		EFM signal input terminal.
11*	JITTV	Output	Unfixed	Jitter detection/monitor terminal.	
12	JITTC	Output	—	Jitter detection/adjustment terminal.	
13	BH	Input	—	BH signal input terminal. A/D input.	
14	PH(RFENV)	Input	—	PH signal or RFENV signal input terminal. A/D input.	
15	FE	Input	—	FE signal input terminal. A/D input.	
16	TE	Input	—	TE signal input terminal. A/D input.	
17	VREF	Input	—	VREF signal input terminal. A/D input.	
18	ADAVDD	—	—	AD for servo, D/A power terminal.	
19	ADAVSS	—	—	AD for servo, D/A ground terminal.	
20*	PHREF	Output	(1/2VDD)	PH reference output terminal. D/A output.	
21*	BHREF	Output	(1/2VDD)	BH reference output terminal. D/A output.	
22	TBLO	Output	(1/2VDD)	Output terminal for tracking balance. D/A output.	
23	TDO	Output	(1/2VDD)	Output terminal for tracking control. D/A output.	
24	FDO	Output	(1/2VDD)	Output terminal for focus control. D/A output.	
25	SPDO	Output	(1/2VDD)	Output terminal for spindle control. D/A output.	
26	SLDO	Output	(1/2VDD)	Output terminal for sled control. D/A output.	
27*	FG	Input	—	FG signal input terminal. (When not used,connect to 0V)	
28	LASER	Output	L	LASER ON/OFF control terminal.	
29	CONT1	In/Output	Input mode	General purpose input/output terminal 1.	Controlled with serial data command from microcomputer. When not used, set it as the input terminal and open it by connecting to 0V, or set it as the output terminal and open it.
30	CONT2	In/Output	Input mode	General purpose input/output terminal 2.	
31	CONT3	In/Output	Input mode	General purpose input/output terminal 3.	
32	CONT4	In/Output	Input mode	General purpose input/output terminal 4.	
33	CONT5	In/Output	Input mode	General purpose input/output terminal 5.	
34*	PCK	Output	H	Clock monitor terminal for EFM data replay. 4.3218MHz as phase clock.	
35*	C2F	Output	H	C2 flag output terminal.	
36	VDD	—	—	Power terminal of digital system.	
37*	DOUT	Output	L	Output terminal of digital OUT. (EIAJ format)	
38*	FSX	Output	L	Output terminal of synchronous signal of 7.35kHz divided from quartz oscillation.	
39*	EFLG	Output	L	C1,C2 correct monitor terminal.	
40	TEST	Input	—	Input terminal for test. Surely connected to 0V.	
41*	EMPH	In/Output	Input mode	Emphasis terminal. After resetting, it is configured as an input terminal. It can be controlled from the outside. It is also becomes a emphasis monitor terminal under command control.	
42*	MUTEL	Output	H	Mute output terminal for L channel.	
43*	MUTER	Output	H	Mute output terminal for R channel.	

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E) (2/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
44	LVDD	—	—	L channel	Power terminal for L channel.
45	LCHO	Output	1/2VDD	D/A converter	L channel output terminal.
46	LVSS	—	—		Ground terminal for L channel. Surely connected to 0V.
47	RVSS	—	—	R channel	Ground terminal for R channel. Surely connected to 0V.
48	RCHO	OUTPUT	1/2VDD	D/A converter	R channel output terminal.
49	RVDD	—	—		Power terminal for R channel.
50	XVDD	—	—	For quartz oscillation	Power terminal for quartz oscillation.
51	XIN	Input	Oscillation		Ground terminal of 16.9344MHz quartz oscillation.
52	XOUT	Output	Oscillation		
53	XVSS	—	—		Ground terminal for quartz oscillation. Surely connected to 0V.
54	ASLRCK	Input	—	For anti shock mode	L/R clock input terminal. (When not used,connect to 0V)
55	ASDACK	Input	—		Bit clock input terminal. (When not used,connect to 0V)
56	ASDFIN	Input	—		L/R channel data input terminal. (When not used,connect to 0V)
57*	LRSY	Output	L	For digital data output	L/R clock output terminal.
58*	DATAACK	Output	L		Bit clock output terminal.
59*	DATA	Output	L		L/R channel data output terminal.
60*	16M	Output	Clock output	16.9344MHz output terminal.	
61*	SFSY	Output	L	Output terminal of synchronous signal of subcode frame. It drops when subcode stand by.	
62*	SBSY	Output	L	Output terminal of synchronous signal of subcode block.	
63*	PW	Output	L	Output terminal of subcodes P,A,R,S,T,U and W.	
64	SBCK	Input	—	Clock input terminal to read subcode. (When not used,connect to 0V)	
65	CE	Input	—	For microcomputer interface	Chip enable signal input terminal.
66	CL	Input	—		Data transmission clock input terminal.
67	DI	Input	—		Data input terminal.
68	DO	Output	L		Data output terminal.
69	INT	Output	H		Interruption signal output terminal.
70	WRQ	Output	H		Interruption signal output terminal.
71	RES	Input	—	Reset input terminal of LC78640. When turning on power, set it at "L".	
72	DRF	Output	L	Focus ON detection terminal.	
73	VDD5V	—	—	Power terminal for microcomputer interface.	
74	VSS	—	—	Ground terminal of digital system. Surely connected to 0V.	
75	CONT6	In/Output	Input mode	General purpose input/output terminal 6.	Controlled with serial data command from microcomputer. When not used, set it as the input terminal and open it by connecting to 0V, or set it as the output terminal and open it.
76	CONT7	In/Output	Input mode	General purpose input/output terminal 7.	
77*	V/ *P	Output	H	Monitor output terminal for automatic switch of rough servo/phase control. "H" for rough servo, and "L" for phase servo.	
78*	FSEQ	Output	L	Output terminal synchronous signal detection. "H" is output when synchronous signal detected by EFM signal matches synchronous signal internally generated.	
79	DEFECT	In/Output	Input mode	Defect terminal. After resetting, it is configured as an input terminal. It can be controlled from the outside. It also becomes a defect monitor terminal under command control	
80*	EFMO	Output	Unfixed	EFM signal output terminal.	

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

Be sure to supply the same potential to each power terminal. (VVDD,ADAVDD,VDD,LVDD,RVDD,XVDD)

Terminal witch is controlled by the power terminal (VDD5V) for a microcomputer interface :

CE (65pin), CL (66pin), DI (67pin), DO (68pin), INT (69pin), WRQ (70pin), RES (71pin), DRF (72pin), CONT6 (75pin), CONT7 (76pin)

CD-BA120/125

IC701 RH-iX0336AWZZ: System Microcomputer (IX0336AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1	VDD	VDD	—	(+) POWER SUPPLY
2	P37	—	—	GND
3*	P36	S-BUSY	Output	COMMUNICATE TO MPEG U-COM
4	P35	T-BTAS	Output	TAPE RECORD BIAS
5	P34	T-T1/T2	Output	TAPE T1/T2 CHANGE
6	P33	REC/PLAY	Output	TAPE REC/PLAY CHANGE
7	P32	RES OUT	Output	CD DSP RESET & MPEG UCOM RESET
8	P31	DRF	Input	CD RF LEVEL DETECTION
9	P30	WRQ	Input	CD DSP WRITE REQUEST
10	RESET	RESET	Input	RESET
11	X2	X2	Output	MAIN CLOCK
12	X1	X1	Input	MAIN CLOCK
13	Vpp/IC	Vpp/IC	—	GND
14*	XT2	XT2	—	OPEN
15	P04	CD TNT	Input	CD DSP INTERRUPT
16	VDD	VDD	—	(+) POWER SUPPLY
17	P27	CD CLK/MCLK	Output	CD DSP CLOCK/MPEG UCOM CLOCK
18	P26	CD ID/MDI	Output	CD DSP COMMAND/MPEG UCOM COMMAND
19	P25	CD DO/MDO	Input	CD DSP CODE Q OUT/MPEG UCOM DATA INPUT
20	P24	CD CE	Output	CD DSP CE OUTPUT
21	P23	CE	Output	CE OUTPUT
22	P22	CLK	Output	CLOCK OUTPUT
23	P21	DT	Output	DATA OUTPUT
24	P20	DO	Output	DATA INPUT
25	AVss	AVSS	—	ANALOG GROUND
26	ANI7 P17	TUN SM M-BUSY	Input Input	TUNER SIGNAL METER INPUT COMMUNICATE TO MPEG UCOM M_BUSY
27	ANI6	NO USE	Input	GND
28	ANI5	SPEANA 2	Input	SPEANA DATA INPUT 16 KHz
29	ANI4	SPEANA 1	Input	SPEANA DATA INPUT 1 KHz
30	ANI3	SPEANA 0	Input	SPEANA DATA INPUT 63 KHz
31-33	ANI2-ANI0	KEY2-KEY0	Input	KEY INPUT
34	AVDD	AVDD	—	ANALOG VDD
35	AVREF	AVREF	—	ANALOG REF VOLTAGE
36	INTP3	SYS STOP	Input	SYSTEM STOP INPUT
37*	P02	SPRLY	Output	SPEAKER OUTPUT RELAY CONTROL
38	INTP1	NO USED	Input	GND
39	INTP0	REMOCON	Input	REMOCON INPUT
40	Vss	VSS	—	GROUND VOLTAGE
41	P74	SMUTE	Output	SYSTEM MUTE CONTROL
42	P73	T_SOL_B	Output	TAPE2 SOLENOID CONTROL
43	P72	T_SOL_A	Output	TAPE1 SOLENOID CONTROL
44	P71	T_MOTOR	Output	TAPE MOTOR CONTROL
45	P70	TIMER LED	Output	TIMER LED CONTROL
46	VDD	VDD	—	(+) POWER SUPPLY
47*	P127	AC RLY_CONT	Output	AC RELAY CONTROL
48	P126	SPRLY	Output	SPEAKER OUTPUT RELAY CONTROL
49	P125	SP DET	Input	SPEAKER OUTPUT DETECTION
50	P124	T1 RUN	Input	TAPE1 RUN PULSE INPUT
51	P123	T2 RUN	Input	TAPE2 RUN PULSE INPUT
52	P122	CD CLAMP SW	Input	CD CHANGER CLAMP SWITCH
53	P121	PLAY SW_A	Input	PLAY SWITCH FOR T1

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

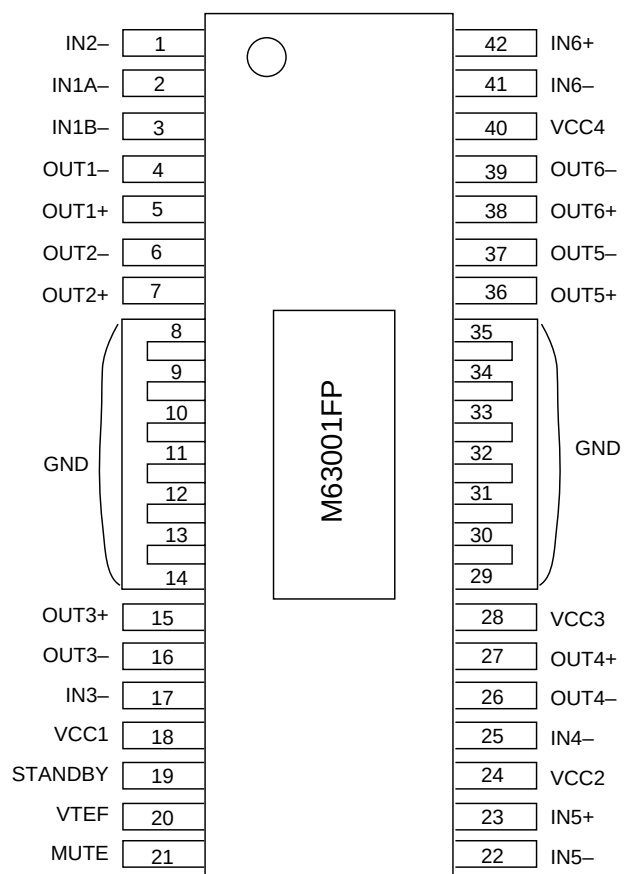
IC701 RH-iX0336AWZZ: System Microcomputer (IX0336AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
54	P120	PLAY SW_B	Input	PLAY SWITCH FOR T2
55	P119	PPA	Input	TAPE2 A-SIDE FULL PROOF
56	P118	FPB	Input	TAPE2 B_SIDE FULL PROOF
57	P117	MIC SW	Input	MIC SWITCH
58*	P116	KARAOKE LATCH	Output	KARAOKE LATCH
59*	P115	DISTOUT	Output	DISTINATION OUTPUT
60	FIP39	SPN	Input	TUNER SPAN CHANGE
61*-62*	FIP38-FIP37	NO USE	Input	OPEN
63*-66*	FIP36-FIP33	P22-P19	Output	FL DISPLAY DRIVER
67*-70*	FIP32-FIP29 P103-P100	P18-P15	Output	FL DISPLAY DRIVER
		DIST3-DIST0	Input	DISTINATION INPUT
71-78	FIP28-FIP21	P14-P7	Output	FL DISPLAY DRIVER
79	VLOAD	VLOAD	—	FL DRIVER (–) POWER SUPPLY.–30V
80-85	FIP20-FIP15	P6-P1	Output	FL DISPLAY SEGMENT
86-89	FIP14-FIP11	—	Input	OPEN
90-100	FIP30-FIP0	G11-G1	IOOutput	FL DISPLAY SEGMENT DRIVER

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3 VHiM63001FP-1: Focus/Tracking/Spin/Slide Driver (M63001FP)

Pin No.	Terminal Name	Function
1	IN2-	CH2 inverted input.
2	IN1A-	CH1 inverted input.
3	IN1B-	CH1 output offset control.
4	OUT1-	CH1 inverted output.
5	OUT1+	CH1 non-inverted output.
6	OUT2-	CH2 inverted output.
7	OUT2+	CH2 non-inverted output.
8-14	GND	GND
15	OUT3+	CH3 non-inverted output.
16	OUT3-	CH3 inverted output.
17	IN3-	CH3 inverted input.
18	VCC1	Power supply 1 (CH1, CH2, CH3)
19	STANDBY	STANDBY signal input.
20	VRFE	CH1-CH4 Reference voltage input.
21	MUTE	Mute signal input (CH6).
22	IN5-	CH5 inverted input.
23	IN5+	CH5 non-inverted input.
24	VCC2	Power supply 2 (CH4).
25	IN4-	CH4 inverted input.
26	OUT4-	CH4 inverted output.
27	OUT4+	CH4 non-inverted output.
28	VCC3	Power supply 3 (CH5).
29-35	GND	GND
36	OUT5+	CH5 non-inverted output.
37	OUT5-	CH5 inverted output.
38	OUT6+	CH6 non-inverted output.
39	OUT6-	CH6 inverted output.
40	VCC4	Power supply 4 (CH6).
41	IN6-	CH6 inverted input.
42	IN6+	CH6 non-inverted input.

**Figure 43 BLOCK DIAGRAM OF IC**

IC601 VHiLC75341/-1: Audio Processor (LC75341)

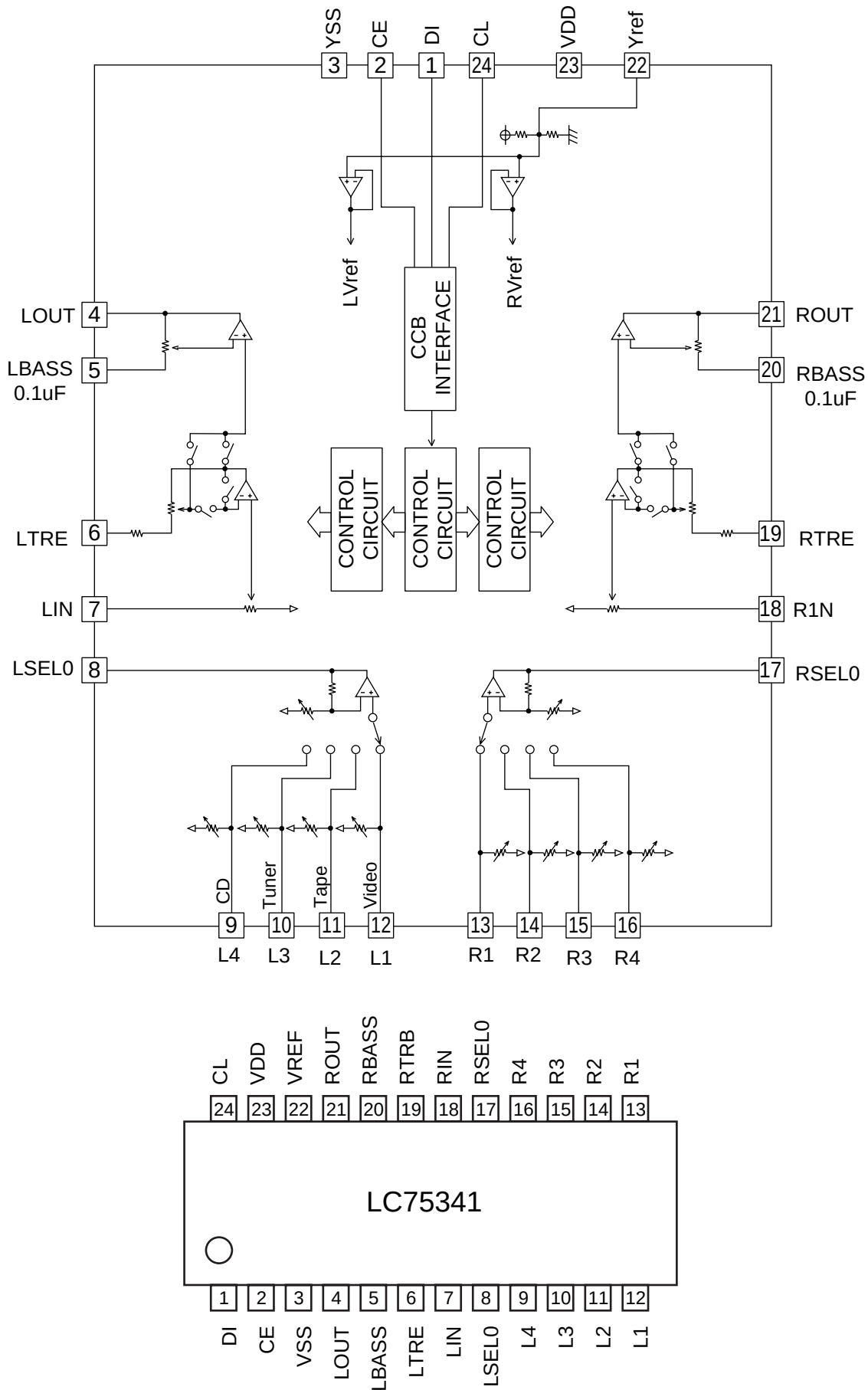
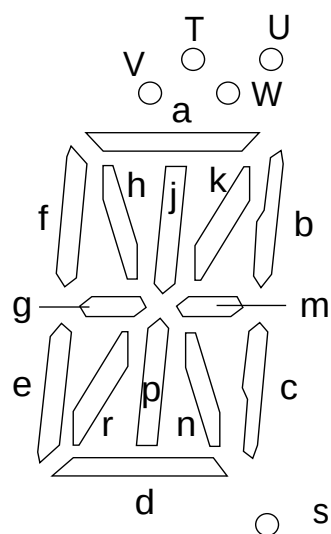
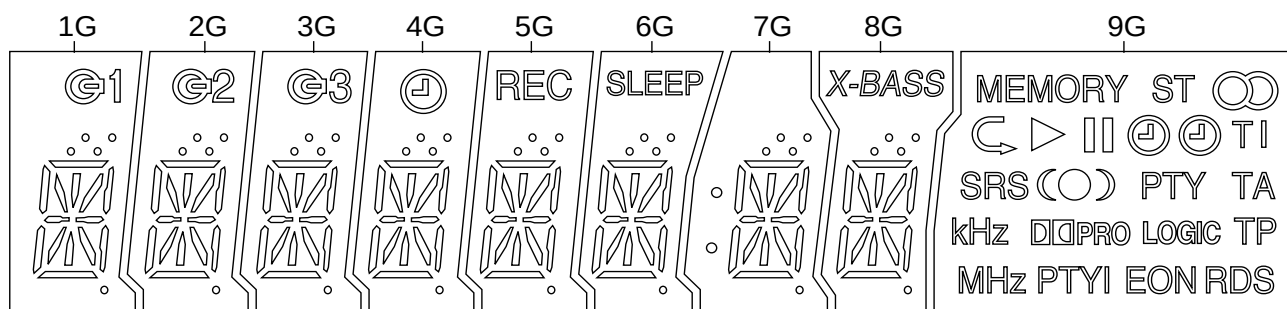


Figure 44 BLOCK DIAGRAM OF IC

FL701 VVKSVA9MS13-1: FL Display



	1G	2G	3G	4G	5G	6G	7G	8G	9G
P1	G1	G2	G3	G4	REC	SLEEP	:	X-BASS	PTYI
P2	U	U	U	U	U	U	U	U	
P3	T	T	T	T	T	T	T	T	TA
P4	V	V	V	V	V	V	V	V	TP
P5	W	W	W	W	W	W	W	W	RDS
P6	a	a	a	a	a	a	a	a	TI
P7	b	b	b	b	b	b	b	b	ST
P8	k	k	k	k	k	k	k	k	MEMORY
P9	j	j	j	j	j	j	j	j	PTY
P10	h	h	h	h	h	h	h	h	ST
P11	f	f	f	f	f	f	f	f	MEMORY
P12	m	m	m	m	m	m	m	m	PTY
P13	d	d	d	d	d	d	d	d	ST
P14	g	g	g	g	g	g	g	g	MEMORY
P15	p	p	p	p	p	p	p	p	PTY
P16	e	e	e	e	e	e	e	e	ST
P17	n	n	n	n	n	n	n	n	MEMORY
P18	r	r	r	r	r	r	r	r	PTY
P19	c	c	c	c	c	c	c	c	ST
P20	s	s	s	s	s	s	s	s	MEMORY

Figure 45 FL DISPLAY

CD-BA120/125

— M E M O —

SHARP PARTS GUIDE

MODEL CD-BA120

CD-BA120 Mini Component System consisting of CD-BA120 (main unit) and CP-BA120 (speaker system).

CD-BA125

CD-BA125 Mini Component System consisting of CD-BA125 (main unit), CP-BA125 (Front speaker) and GBOXS0042AWM1 (rear speaker).

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. No. |
| 3. PART NO. | 4. DESCRIPTION |

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

VCC Ceramic type
 VCK Ceramic type
 VCT Semiconductor type
 VC •• MF Cylindrical type (without lead wire)
 VC •• MN Cylindrical type (without lead wire)
 VC •• TV Square type (without lead wire)
 VC •• TQ Square type (without lead wire)
 VC •• CY Square type (without lead wire)
 VC •• CZ Square type (without lead wire)
 VC J .. The 13th character represents capacity difference.
 ("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
 "C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD Carbon-film type
 VRS Carbon-film type
 VRN Metal-film type
 VR •• MF Cylindrical type (without lead wire)
 VR •• MN Cylindrical type (without lead wire)
 VR •• TV Square type (without lead wire)
 VR •• TQ Square type (without lead wire)
 VR •• CY Square type (without lead wire)
 VR •• CZ Square type (without lead wire)
 VR J .. The 13th character represents error.
 ("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

NOTE:

Parts marked with "⚠" are important for maintaining the safety of the set.

Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

CD-BA120/125

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
CD-BA120/125				
INTEGRATED CIRCUITS				
IC1	VHILA9235M/-1	J	AQ	Servo Amp.,LA9235M
IC2	VHILC78641E-1	J	AV	Servo/Signal Control,LC78641E
IC3	VHIM63001FP-1	J	AX	Focus/Tracking/Spin/Sled Driver, M63001FP
IC101	VHIAN7345K/-1	J	AM	Playback and Record/Playback Amp.,AN7345K
IC301	VHITA7358AP-1	J	AG	FM Front End,TA7358AP
IC302	VHILC72131/-1	J	AP	PLL (Tuner),LC72131
IC303	VHILA1832S/-1	J	AN	FM IF Det./FM Mpx./AM IF, LA1832S
IC601	VHILC75341/-1	J	AM	Audio Processor,LC75341
IC701	RH-IX0336AWZZ	J	AX	System Microcomputer, IX0328AW
IC704	VHIKIA7042AP1	J	AC	Reset,KIA7042AP
IC901	VHILA4282/-1	J	AM	Power AMP.,STK40204
IC902	VHIKIA7810AP1	J	AF	Voltage Regulator,KIA7810AP
IC904	VHIKIA7805P-1	J	AF	Voltage Regulator,KIA7805P

TRANSISTORS

Q1	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q2	VSKRC102M/-1	J	AC	Digital,NPN,KRC102 M
Q3	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q101	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q102,103	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
Q104~107	VS2SC1845F/-1	J	AC	Silicon,NPN,2SC1845 F
Q108~111	VS2SC3331/-1	J	AB	Silicon,NPN,2SC3331
Q112	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q113	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
Q114	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q302	VSKTC3194Y/-1	J	AD	Silicon,NPN,KTC3194 Y
Q360	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q601,602	VS2SC3331/-1	J	AB	Silicon,NPN,2SC3331
Q701	VSKRC107M/-1	J	AC	Digital,NPN,KRC107 M
Q702,703	VS2SC3331/-1	J	AB	Silicon,NPN,2SC3331
Q704,705	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q706	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
Q707	VSKRC102M/-1	J	AC	Digital,NPN,KRC102 M
Q901,902	VSKRC102M/-1	J	AC	Digital,NPN,KRC102 M
Q903	VSKTD2026/-1	J	J	Silicon,NPN,KTD2026
Q904	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR

DIODES

D21,22	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D93	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D301,302	VHD1SS133/-1	J	AA	Silicon,1SS133
D305	VHD1SS133/-1	J	AA	Silicon,1SS133
D701~705	VHD1SS133/-1	J	AA	Silicon,1SS133
D707~711	VHD1SS133/-1	J	AA	Silicon,1SS133
D907~910	VHDLR203F/-1	J	AC	Silicon,RL203F
D911~917	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D918	VHD1SS133/-1	J	AA	Silicon,1SS133
LED722	VHP4204SRT7-1	J	AD	LED,Red,4204SRT7
VD301	VHCSVC348S/-1	J	AK	Variable Capacitance,SVC348S
VD302,303	VHCSVC211C/-1	J	AG	Silicon,SVC211C,Variable Cap
ZD61	VHEDZ3R9BSB-1	J	AC	Zener,3.9V,DZ3.9BSB
ZD902	VHEDZ300BSB-1	J	AB	Zener,30V,DZ300BSB
ZD903	VHEMTZJ6R2A-1	J	AA	Zener,6.2V,MTZJ6.2A

FILTERS

BF301	RFILR0008AWZZ	J	AE	Band Pass Filter
CF303	RFILF0124AFZZ	J	AD	FM IF,10.7 MHz
CF351	RFILF0003AWZZ	J	AK	FM IF
CF352	RFILA0009AWZZ	J	AE	AM IF

TRANSFORMERS

△ PT801	RTRNP0305AWZZ	J	AZ	Power
T301	RCILB0065AWZZ	J	AC	FM, OSC
T302	RCILIO017AWZZ	J	AB	FM IF
T303	RCILA0052AWZZ	J	AE	AM Tracking
T306	RCILB0058AWZZ	J	AC	AM OSC
T351	RCILIO019AWZZ	J	AD	AM IF

COILS

L61	VP-XHR82K0000	J	AC	0.82 μH
L62	VP-XH2R2K0000	J	AB	2.2 μH,Choke
L103	VP-DH101K0000	J	AB	100 μH,Choke
L104	VP-MK331K0000	J	AB	330 μH,Choke
L312	RCILR0056AWZZ	J	AB	FM RF
L351,352	VP-DH101K0000	J	AB	100 μH,Choke
L701	VP-DH101K0000	J	AB	100 μH,Choke

VIBRATORS

X351	92LCRSTL1425A	J	AF	Crystal,456 kHz
X352	RCRSP0002AWZZ	J	AH	Crystal,4.5 MHz
XL1	92LCRSTL1746AT	J	AH	Crystal,16.9344 MHz
XL701	RCRSP0003AWZZ	J	AH	Crystal,

CAPACITORS

C6	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C7	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic
C8	VCKYTV1HB104K	J	AB	0.1 μF,50V
C11	RC-EZY474AF0J	J	J	0.47 μF,6.3V,Electrolytic
C12	VCKYTV1HB104K	J	AB	0.1 μF,50V
C13	VCKYTV1HB103K	J	AA	0.01 μF,50V
C14	VCKYTV1EF334Z	J	AB	0.33 μF,25V
C16	VCCSPA1HL6R0J	J	AA	6 pF,50V
C17	VCKYTV1HB472K	J	AA	0.0047 μF,50V
C18	VCCCTV1HH3R0C	J	AA	3 pF (CH),50V
C19	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C20,21	VCKYTV1HB104K	J	AB	0.1 μF,50V
C22	VCKYTV1HB101K	J	AA	100 pF,50V
C23	VCKYTV1HB473K	J	AA	0.047 μF,50V
C24	VCEAZA1HW225M	J	AB	2.2 μF,50V,Electrolytic
C25	VCKYTV1HB104K	J	AB	0.1 μF,50V
C26	VCKYTV1HB473K	J	AA	0.047 μF,50V
C27	VCKYTV1HB104K	J	AB	0.1 μF,50V
C28	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C29,30	VCKYTV1HB104K	J	AB	0.1 μF,50V
C31	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C34	VCTYBT1EF223Z	J	AA	0.022 μF,25V
C38,39	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic
C40	VCKYTV1HB152K	J	AA	0.0015 μF,50V
C41	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C42	VCCSTV1HL680J	J	AA	68 pF,50V
C43	VCKYTV1HB152K	J	AA	0.0015 μF,50V
C44	VCKYTV1HB104K	J	AB	0.1 μF,50V
C45	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C46	VCKYTV1EF223Z	J	AA	0.022 μF,25V
C47	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic
C49,50	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic
C51	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C52	VCTYPA1CX103K	J	AA	0.01 μF,16V
C53	VCKYTV1HB102K	J	AA	0.001 μF,50V
C54	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C55	VCKYTV1HB103K	J	AA	0.01 μF,50V
C56	VCEAZA0JW337M	J	AC	330 μF,6.3V,Electrolytic
C64	RC-EZY474AF0J	J	J	0.47 μF,6.3V,Electrolytic
C71	VCKYTV1HB101K	J	AA	100 pF,50V
C72	VCKYTV1HB103K	J	AA	0.01 μF,50V
C73~78	VCKYTV1HB101K	J	AA	100 pF,50V
C80	VCKYTV1HB104K	J	AB	0.1 μF,50V
C81~83	VCKYTV1EF223Z	J	AA	0.022 μF,25V
C101	VCKZPA1HF473Z	J	AA	0.047 μF,50V
C102,103	VCKYMN1HB561K	J	AA	560 pF,50V
C104,105	VCKYMN1HB181K	J	AA	180 pF,50V
C106,107	VCKYMN1HB561K	J	AA	560 pF,50V
C108	RC-EZD107AF1A	J	AC	100 μF,50V,Electrolytic
C112~115	VCKYMN1HB331K	J	AA	330 pF,50V
C116,117	VCEAZA1EW107M	J	AB	100 μF,25V,Electrolytic
C118,119	VCTYPA1EX333K	J	AA	0.033 μF,25V
C120,121	VCKYMN1HB561K	J	AA	560 pF,50V
C122,123	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C126,127	VCKYMN1HB271K	J	AA	270 pF,50V
C128,129	VCEAZA1EW226M	J	AB	22 μF,25V,Electrolytic
C130,131	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C132,133	VCTYMN1CX332K	J	AA	0.0033 μF,16V
C134,135	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
C136	VCEAZA1EW226M	J	AB	22 μF,25V,Electrolytic
C137	VCTYMN1EF223Z	J	AA	0.022 μF,25V
C138	VCEAZA1AW227M	J	AC	220 μF,10V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C139	VCEAEA1HW335M	J	AB	3.3 μF,50V,Electrolytic	C713	VCEAZA1HW104M	J	AB	0.1 μF,50V,Electrolytic
C140	VCQPKA2AA822J	J	AA	0.0082 μF,100V,Polypropylene	C714	VCTYMN1CY103N	J	AA	0.01 μF,16V
C141	VCQYKA1HM393K	J	AB	0.039 μF,50V,Mylar	C715	VCEAZA1HW335M	J	AB	3.3 μF,50V,Electrolytic
C142	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic	C716	VCTYBT1EF223Z	J	AA	0.022 μF,25V
C145~147	VCKYMN1HB102K	J	AA	0.001 μF,50V	C717	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C148	VCKZPA1HF473Z	J	AA	0.047 μF,50V	C718	VCTYMN1EF223Z	J	AA	0.022 μF,25V
C301,302	VCKYMN1HB102K	J	AA	0.001 μF,50V	C719	RC-EZD476AF1E	J	AB	47 μF,25V,Electrolytic
C303	VCCCMN1HH100J	J	AA	10 pF (CH),50V	C903,904	VCKYPA1HB102K	J	AA	0.001 μF,50V
C304	VCTYMN1CY103N	J	AA	0.01 μF,16V	C905	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C305	VCCCMN1HH4R7C	J	AA	4.7 pF (CH),50V	C906	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
C306	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C907	VCEAZA1EW107M	J	AB	100 μF,25V,Electrolytic
C307	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic	C908,909	VCQYKA1HM823K	J	AC	0.082 μF,50V,Mylar
C308	VCCSMN1HL4R7C	J	AA	4.7 pF,50V	C910	VCEAZA1EW107M	J	AB	100 μF,25V,Electrolytic
C309	VCKYMN1HB102K	J	AA	0.001 μF,50V	C911	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C310	VCCCMN1HH150J	J	AA	15 pF (CH),50V	C914,915	VCEAZA1EW477M	J	AD	470 μF,25V,Electrolytic
C311	VCCSMN1HL180J	J	AA	18 pF,50V	C916,917	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar
C312	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C918	VCKYPA1HB221K	J	AA	220 pF,50V
C313	VCCCMN1HH220J	J	AA	22 pF (CH),50V	C919	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C314,315	VCTYMN1CX472K	J	AA	0.0047 μF,16V	C933	VCCSPA1HL680J	J	AA	68 pF,50V
C316	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C934	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar
C317	VCKYMN1HB102K	J	AA	0.001 μF,50V	C935	VCEAZA1EW226M	J	AB	22 μF,25V,Electrolytic
C318	VCKYMN1HB101K	J	AA	100 pF,50V	C938	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
C320	VCTYBT1EF223Z	J	AA	0.022 μF,25V	C939,940	VCQYKA1HM104K	J	AB	0.1 μF,50V,Mylar
C323	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C943	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
C324	VCCUMN1HJ3R9K	J	AA	3.9 pF (UJ),50V	C944	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C330	VCCUMN1HJ150J	J	AA	15 pF (UJ),50V	C945	VCQYKA1HM104K	J	AB	0.1 μF,50V,Mylar
C331	VCKZPA1HF473Z	J	AA	0.047 μF,50V	C946	VCEAZW1VW228M	J	AH	2200 μF,35V,Electrolytic
C332	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C947	VCEAZW1EW338M	J	AG	3300 μF,25V
C334	VCCUMN1HJ270J	J	AA	27 pF (UJ),50V	C950~953	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar
C335	VCKYMN1HB561K	J	AA	560 pF,50V	C954	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic
C342	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C955~957	VCEAZA1HW476M	J	AB	47 μF,50V,Electrolytic
C350,351	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C958,959	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic
C352	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic	C960,961	VCEAZA1HW226M	J	AB	22 μF,50V,Electrolytic [125 Only]
C353,354	VCTYMN1EF223Z	J	AA	0.022 μF,25V					
C355	VCCSMN1HL220J	J	AA	22 pF,50V					
C356	VCKYMN1HB102K	J	AA	0.001 μF,50V					
C357	VCEAZA1HW225M	J	AB	2.2 μF,50V,Electrolytic					
C358	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C361	VCTYMN1EF223Z	J	AA	0.022 μF,25V					
C362	VCEAZA1HW335M	J	AB	3.3 μF,50V,Electrolytic					
C363	VCTYMN1EF223Z	J	AA	0.022 μF,25V					
C364	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic					
C365	VCKZPA1HF223K	J	J	0.022 μF,50V					
C366	VCKYMN1HB102K	J	AA	0.001 μF,50V					
C367,368	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C369	VCCUMN1HJ270J	J	AA	27 pF (UJ),50V					
C370~372	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C373,374	VCTYPA1CX153K	J	AA	0.015 μF,16V					
C380	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic					
C381	VCCCMN1HH120J	J	AA	12 pF (CH),50V					
C382	VCCCMN1HH150J	J	AA	15 pF (CH),50V					
C384	VCKYMN1HB102K	J	AA	0.001 μF,50V					
C385	VCTYMN1CY103N	J	AA	0.01 μF,16V					
C386	VCKYMN1HB331K	J	AA	330 pF,50V					
C387	VCTYMN1EF223Z	J	AA	0.022 μF,25V					
C391	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic					
C392	VCKYMN1HB102K	J	AA	0.001 μF,50V					
C393	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C394	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic					
C395	VCTYMN1EF223Z	J	AA	0.022 μF,25V					
C396	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic					
C397	VCTYMN1EF223Z	J	AA	0.022 μF,25V					
C398	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic					
C399	VCTYMN1EF223Z	J	AA	0.022 μF,25V					
C601,602	VCKYMN1HB102K	J	AA	0.001 μF,50V					
C603	VCEAZA1EW226M	J	AB	22 μF,25V,Electrolytic					
C604	VCEAZA1EW107M	J	AC	100 μF,25V,Electrolytic					
C605	VCKZPA1HF223Z	J	AA	0.022 μF,50V					
C606	VCEAZA1HW226M	J	AB	22 μF,50V,Electrolytic					
C607,608	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic					
C609~612	VCQYKA1HM104K	J	AB	0.1 μF,50V,Mylar					
C613,614	VCTYPA1CX272K	J	AA	0.0027 μF,16V					
C617,618	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C623~630	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C701	VCTYBT1EF223Z	J	AA	0.022 μF,25V					
C702	RC-EDZ227AF1A	J	AC	220 μF,10V,Electrolytic					
C703	VCCSMN1HL150J	J	AA	15 pF,50V					
C704	VCCSMN1HL180J	J	AA	18 pF,50V					
C705	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic					
C707,708	RC-EDZ105AF1H	J	AB	1 μF,50V,Electrolytic					
C710	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic					
C711,712	RC-EZD106AF1C	J	AC	10 μF,16V,Electrolytic					
							</		

CD-BA120/125

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R110	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R111,112	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R113	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R114,115	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R116,117	VRD-ST2CD560J	J	AA	56 ohms,1/6W
R118,119	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R120,121	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R122,123	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R124,125	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R126	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R127,128	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R129,130	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R131,132	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R133,134	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R135,136	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R137	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R138	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R139	VRD-ST2EE181J	J	AA	180 ohms,1/4W
R140	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R141	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R142,143	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R144	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R145	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R146	VRD-RT2HD820J	J	AA	82 ohms,1/2W
R147	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R148	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R149	VRD-ST2CD47J	J	AA	4.7 ohms,1/6W
R157	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R302	VRD-MN2BD100J	J	AA	10 ohm,1/8W
R309	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R311	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R313	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R314	VRD-ST2CD220J	J	AA	22 ohms,1/6W
R316	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R322	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R323	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R325	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R327	VRD-MN2BD330J	J	AA	33 ohms,1/8W
R336	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R350	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R351	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R352	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R353	VRD-MN2BD271J	J	AA	270 ohms,1/8W
R355	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R356	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R357	VRD-ST2CD474J	J	AA	470 kohms,1/6W
R358	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R359	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R360	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R361,362	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R363,364	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R365	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R372~374	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R375	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R376	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R377	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R378	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R379	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R380	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R381	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R382	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R383	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R384	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R385	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R386	VRD-ST-2CD223J	J	AA	22 kohms,1/6W
R387	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R388	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R393	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R395	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R601,602	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R603,604	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R607,608	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R609,610	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R615,616	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R617	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R618	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R625	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R702~704	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R705~717	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R719~721	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R722	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R724	VRD-ST2CD102J	J	AA	1 kohm,1/6W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R725	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R726~729	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R732	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R733~737	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R742	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R743	VRD-MN2BD330J	J	AA	33 ohms,1/8W
R744	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R745	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R748~751	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R753	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R755	VRD-ST-2CD472J	J	AA	4.7 kohm,1/6W
R756,757	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R758,759	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R760,761	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R762,763	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R766~768	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R769	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R770	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R771	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R772	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R773	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R775~777	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R778	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R779	VRD-RT2HD3R3J	J	AA	3.3 ohms,1/2W
R792	VRD-ST-2CD102J	J	AA	1 kohm,1/6W
R905	VRD-ST2CD121J	J	AA	120 ohms,1/6W
R906,907	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R908	VRD-ST2CD121J	J	AA	120 ohms,1/6W
R909	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R910,911	VRD-RT2HD271J	J	AA	270 ohms,1/2W
R912,913	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R914	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R915	VRD-ST2EE821J	J	AA	820 ohms,1/4W
R916,917	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R922	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R923	VRD-ST2CD330J	J	AA	33 ohms,1/6W
R924	VRD-RT2HD3R3J	J	AA	3.3 ohms,1/2W
R925	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R926	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R927	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R928	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R929,930	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R935	VRD-RT2HD3R3J	J	AA	3.3 ohms,1/2W
RD01	VRD-ST2CD681J	J	AA	680 ohms,1/6W
RD02	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD03	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD04	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
RD05	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD06	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
RD07	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD08	VRD-ST2CD563J	J	AA	56 kohms,1/6W
RD09	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RD10	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD11	VRD-ST-2CD102J	J	AA	1 kohm,1/8W
RD12	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
RD13	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RD14	VRD-ST2CD821J	J	AA	820 ohms,1/6W
RD15	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD16	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
RD17	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD18	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
RD19	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD20	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD21	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD22	VRD-MN2BD153J	J	AA	15 kohms,1/8W
RD23	VRD-MN2BD333J	J	AA	33 kohms,1/8W
RD24	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RD25	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RD26	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W

OTHER CIRCUITRY PARTS

BI601/CNS601	QCNWN1540AWZZ	J	AF	Connector Ass'y,5/5Pin
BI702/CNS702	QCNWN1541AWZZ	J	AH	Connector Ass'y,10/10Pin
CNP1	QCNCM704GAWZZ	J	AC	Plug,7Pin
CNP2	QCNCM704HAFZZ	J	AC	Plug,8Pin
CNP3	92LCONE6P53253	J	AC	Plug,6Pin
CNP3A	92LCONE6P53254	J	AC	Plug,6Pin
CNP4	QCNCM705FAFZZ	J	AB	Plug,6Pin
CNP11	92LCONE5P53254	J	AB	Plug,5Pin
CNP12	92LCONEAP53254	J	AD	Plug,10Pin
CNP101	QCNCM705CAFZZ	J	AA	Plug,3Pin

NO.	PARTS CODE	★ PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★ PRICE RANK	DESCRIPTION
CNP102	QCNCM707GAFZZ	J	Plug, 7Pin	201- 2	GDORF0076AWSA	J AE	Holder, Cassette, Tape 1
CNP301	92LCONE3P5268	J AC	Plug, 3Pin	201- 3	GDORF0077AWSA	J AE	Holder, Cassette, Tape 2
CNP701	QCNCWZX18AWZZ	J AD	Plug, 18Pin	201- 4	GCOVA1270AWSA	J AH	Cover, Cassette, Tape 1
CNP801	QCNCM049BAWZZ	J AC	Plug, 2Pin	201- 5	GCOVA1271AWSA	J AH	Cover, Cassette, Tape 2
CNP901	QCNCM035FAWZZ	J AC	Plug, 6Pin	201- 6	HDECQ0541AWSA	J AE	Panel, Cassette, Tape 1
CNS1A/B	QCNWN1537AWZZ	J AG	Connector Ass'y, 7/7Pin	201- 7	HDECQ0542AWSA	J AE	Panel, Cassette, Tape 2
CNS2A/B	QCNWN1538AWZZ	J AG	Connector Ass'y, 8/8Pin	201- 8	HDECQ0543AWSA	J AH	Panel, Amp. [120]
CNS3A/B	QCNWN1539AWZZ	J AE	Connector Ass'y, 6/6Pin	201- 8	HDECQ0567AWSA	J J	Panel, Amp. [125]
CNS701	QCNCWZY18AWZZ	J AD	Plug, 18Pin	201-10	JKNBZ0677AWSA	J AG	Knob, Volume
CNS703	QCNCWZY13AWZZ	J AC	Plug, 13Pin	201-11	JKNBZ0678AWSA	J AD	Knob, Function Base
△ F901	92LFUSET302D	J AD	Fuse, 3A/250V	201-12	JKNBZ0674AWSA	J AF	Knob, Power/Clock
△ F902	92LFUSET162D	J	Fuse, 1.6A/250V	201-13	JKNBZ0712AWSA	J AH	Knob, Play/Stop
FFC13	QCNWN1544AWZZ	J AE	Flat Cable, 13Pin	201-14	JKNBZ0713AWSA	J AH	Knob, FF/REW
FFC18	QCNWN1613AWZZ	J AF	Flat Cable, 18Pin	201-15	JKNBZ0676AWSA	J AF	Knob, Tuning
FL701	VVKSVA9MS13-1	J AZ	FL Display	201-16	HDECQ0544AWSA	J AH	Panel, Decoration
FW901	QCNWN1612AWZZ	J AD	Connector Ass'y, 5Pin	201-20	GCOVA1272AWSA	J AE	Cover, Function Knob, A
JK901	QJAKM0010AWZZ	J AF	Jack, Headphones	201-21	MLIFP0008AWZZ	J AD	Damper
LG901	QLUGP0001AWZZ	J AC	Lug	201-22	MSPRD0092AWFJ	J AB	Spring, Cassette, Tape 1
LUG1	QLUGP0002AWZZ	J AB	Lug	201-23	MSPRD0093AWFJ	J AB	Spring, Cassette, Tape 2
M1	92LMTR2790CASY	J BB	Motor with Chassis [Spindle]	201-24	92LBADGE1671A	J AC	Badge, SHARP
M2	92LMTR1854BASY	J AP	Motor with Gear [Sled]	201-25	JKNBZ0675AWSA	J AF	Knob, Disc/X-BASS
M3	92LTWMEN7E6Y	J	Motor with Worm Pulley [T/T Up/Down Loading]	201-26	GCOVA1273AWSA	J AE	Cover, Function Knob, B
				201-27	GCOVA1274AWSA	J AE	Cover, Function Knob, C
RX701	VHLN63H380A-1	J AK	Remote Sensor, N63H380A	202	92LCAB3325BASY	J	Side Panel Ass'y, Left
SO801	QSOCA0209AWZZ	J AH	Socket, AC Input	202- 1	—	—	Side Panel, Left (Not Replacement Item)
SO901	QTANA0416AWZZ	J AE	Terminal, Speaker	202- 2	PCUSG0022AWZZ	J AB	Cushion, Leg
SW1	SWMPU10780MLB	J	Switch, Push Type [Open/Close]	203	92LCAB3325CASY	J	Side Panel Ass'y, Right
SW2	SWMPU11470MLB	J	Switch, Push Type [Clamp]	203- 1	—	—	Side Panel, Right (Not Replacement Item)
SW3	SWMPU11470MLB	J	Switch, Push Type [Disc Number]	203- 2	PCUSG0022AWZZ	J AB	Cushion, Leg
SW4	QSW-F9001AW01	J AD	Switch, Leaf Type [Pickup In]	204	92LCOV3303AASY	J	CD Tray Cover Ass'y
SW701	92LSWICHT1663T	J AC	Switch, Key Type [POWER]	204- 1	—	—	Cover, CD Tray (Not Replacement Item)
SW702	92LSWICHT1663T	J AC	Switch, Key Type [CLOCK]	204- 2	GCOVA1254AWSA	J AE	Cover, CD Tray Panel, Left
SW703	92LSWICHT1663T	J AC	Switch, Key Type [TIMER/SLEEP]	204- 3	GCOVA1255AWSA	J AE	Cover, CD Tray Panel, Right
SW709	92LSWICHT1663T	J AC	Switch, Key Type [DISC SKIP]	205	GCAB-1184AWSA	J AP	Top Cabinet
SW710	92LSWICHT1663T	J AC	Switch, Key Type [OPEN/CLOSE]	206	GITAR0548AWSA	J AH	Rear Panel [120 for U.S.A.]
SW711	92LSWICHT1663T	J AC	Switch, Key Type [X-BASS/DEMO]	206	GITAR0565AWSA	J	Rear Panel [120 for Canada]
SW712	92LSWICHT1663T	J AC	Switch, Key Type [Volume Up]	206	GITAR0566AWSA	J	Rear Panel [120 for Central America/Mexico]
SW713	92LSWICHT1663T	J AC	Switch, Key Type [Volume Down]	206	GITAR0568AWSA	J	Rear Panel [125 for Canada]
SW714	92LSWICHT1663T	J AC	Switch, Key Type [CD]	206	GITAR0569AWSA	J	Rear Panel [125 for Central America/Mexico]
SW715	92LSWICHT1663T	J AC	Switch, Key Type [Tape]	206	GITAR0573AWSA	J	Rear Panel [125 for U.S.A.]
SW716	92LSWICHT1663T	J AC	Switch, Key Type [Tuning/Time Down]	208	LANGK0110AWFW1J	AD	Support, Cassette Lock, Tape 1
SW717	92LSWICHT1663T	J AC	Switch, Key Type [Memory/Set]	209	LANGK0111AWFW1J	AD	Support, Cassette Lock, Tape 2
SW718	92LSWICHT1663T	J AC	Switch, Key Type [Rewind]	213	LCHSM0098AWFW	J AQ	Main Chassis
SW719	92LSWICHT1663T	J AC	Switch, Key Type [Fast Forward]	214	LHLDZ1087AWSA1	J AC	Holder, FL Display
SW720	92LSWICHT1663T	J AC	Switch, Key Type [Play/Repeat]	219	MLOK0003AWZZ	J AD	Lock Lever, Cassette, Tape 1
SW721	92LSWICHT1663T	J AC	Switch, Key Type [Stop]	220	MLOK0004AWZZ	J AD	Lock Lever, Cassette, Tape 2
SW723	92LSWICHT1663T	J AC	Switch, Key Type [REC/PAUSE]	221	MSPRD0109AWFJ	J AB	Spring, Cassette Lock, Tape 1
SW724	92LSWICHT1663T	J AC	Switch, Key Type [TUNING/TIME UP]	222	MSPRD0110AWFJ	J AB	Spring, Cassette Lock, Tape 2
SW725	92LSWICHT1663T	J AC	Switch, Key Type [Tuner/Band]	224	92LPT0331105	J AM	Table Loading
CD MECHANISM PARTS				225	PCUSG0022AWZZ	J AB	Cushion, Leg
301	NGERH0011AWZZ	J AC	Gear, Middle	226	PRDAR0004BGFW	J	Heat Sink, Main
302	NGERH0012AWZZ	J AC	Gear, Drive	230	QCNWN1615AWZZ	J AC	Lug Wire
303	MLEVPO080AWZZ	J AC	Rail, Guide	△ 231	QFSDH0001AWZZ	J AB	Holder, Fuse
304	NSFTM0020AWFW	J AD	Shaft, Guide	232	92LBE241414	J AD	Belt
305	92LM-CUSN1524A	J AC	Cushion	234	92LEVA0330702	J	Velvet Carpet, Chassis
△ 306	92LHPC1LXASY	J BD	Pickup Unit Ass'y	235	92LMAG0104302	J	Magnet
306- 1	—	—	Pickup Unit (Not Replacement Item)	236	92LMT0304302	J	Plate, Metal
306- 2	NGERR0043AFZZ	J AC	Gear, Rack	237	92LNBAND1318A	J AA	Nylon Band, 80mm
306- 3	MSPRC0961AFZZ	J AA	Spring, Rack	238	92LNM0305401	J	Velvet Carpet
701	XBSSD26P06000	J AA	Screw, ø2.6×6mm	239	92LPT0303002	J AB	Roller
702	XHBSD20P05000	J AA	Screw, ø2×5mm	240	92LPT0304303	J AB	Lever, Stop
703	XBBSD20P03000	J AA	Screw, ø2×3mm	241	92LPT0304304	J	Stopper
704	LX-WZ1070AFZZ	J AA	Washer, ø1.5×ø3.8×0.25mm	242	92LPT0304305	J AE	Lever, Lock
M1	92LMTR2790CASY	J BB	Motor with Chassis [Spindle]	243	92LPT0304306	J	Stabilizer
M2	92LMTR1854BASY	J AP	Motor with Gear [Sled]	244	92LPT0304307	J AC	Support, Cam
SW4	QSW-F9001AW01	J AD	Switch, Leaf Type [Pickup In]	245	92LPT0304308	J	Lock Gear Pin
CABINET PARTS				246	92LPT0304309	J	Cap, Pulley Stopper
201	92LCAB3225AASY	J	Front Panel Ass'y [120]	247	92LPT0305413	J	Cam Gear Lower
201	92LCAB3326AASY	J	Front Panel Ass'y [125]	248	92LPT0309506	J AD	Gear, Turntable Drive
201- 1	—	—	Front Panel (Not Replacement Item)	249	92LPT0309507	J AD	Gear, Open/Close Drive
				250	92LPT0309508	J AD	Gear, Planet
				251	92LPT0309509	J AD	Gear, Drive
				252	92LPT0309510	J AE	Gear, Pulley
				253	92LPT0309511	J AD	Gear, Middle
				254	92LPT0311101	J AB	Lever, Clamp
				255	92LPT0311102	J AC	Lever, Disc

CD-BA120/125

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
256	92LPT0312005	J		Gear,Cam
257	92LPT0320201	J	AE	Support,Stabilizer
258	92LPT0330301	J	AU	Chassis,Loading
259	92LPT0330803	J	AK	CD,Chassis
260	92LPT0331003	J	AT	Chassis,Slide
262	92LSP0304303	J		Spring,Stopper
263	92LSP0304305	J	AB	Spring,Lock
264	92LSP0304306	J		Spring,Lock Gear
268	KMECB0011AWZZ	J	BH	Tape Mechanism Ass'y
270	LHLDZ1230AWZZ	J	AC	Holder,LED
271	PRDAR0005BGFV	J		Heat Sink,Sub
604	XEBSF30P12000	J	AA	Screw,ø3×12mm
605	XESSD30P10000	J	AA	Screw,ø3×10mm
606	XHBSD26P04000	J	AA	Screw,ø2.6×4mm
610	XJBSF30P10000	J	AA	Screw,ø3×10mm
611	XJBSD30P08000	J	AA	Screw,ø3×8mm
612	LX-HZ0009AWFD	J	AC	Screw,Special
613	LX-HZ0082AFZZ	J	AA	Screw,ø4×8mm
614	LX-JZ0010AFFD	J	AA	Screw,Special
616	LX-BZ2222AXZZ	J		Screw,Special
617	LX-JZ0004AWFD	J	AA	Screw,ø3×12mm
618	92LSC0308MBZI	J	AB	Screw,ø3×8mm
619	92LSC0308RBZI	J		Screw,ø3×8mm
620	XEBSD26P08000	J	AA	Screw,ø2.6×8mm

PACKING PARTS (Except for U.S.A.)

SPAKA0242AWZZ	J		Packing Add.,Left/Right
SPAKC0917AWZZ	J		Packing Case [120 for Canada]
SPAKC0918AWZZ	J		Packing Case [120 for Central America/ Mexico]
SPAKC0968AWZZ	J		Packing Case [125 for Central America/ Mexico]
SPAKC0969AWZZ	J		Packing Case [125 for Canada]
SPAKP0013AWZZ1	J	AC	Polyethylene Bag,Unit
SPAKZ0573AWZZ	J		Sheet,CD Tray
92LBAG1460C1	J	AB	Polyethylene Bag,Accessories

ACCESSORIES

QACCD0020AWZZ	J	AN	AC Power Supply Cord [Except for Canada]
QACCD0025AWZZ	J	AN	AC Power Supply Cord [For Canada]
QANTL0007AWZZ	J	AK	AM/FM Loop Antenna
TINSE0299AWZZ	J	AE	Operation Manual [120 for U.S.A.]
TINSE0302AWZZ	J		Operation Manual [125 for U.S.A.]
TINSK0102AWZZ	J	AF	Operation Manual [120 for Canada]
TINSK0103AWZZ	J		Operation Manual [125 for Canada]
TINSZ0532AWZZ	J		Operation Manual [120 for Central America Mexico]
TINSZ0533AWZZ	J	AB	Quick Guide [120 for U.S.A. Only]
TINSZ0534AWZZ	J		Operation Manual [125 for Central America/ Mexico]
TINSZ0538AWZZ	J		Quick Guide [125 for U.S.A. Only]
TLABR1090AWZZ	J	AB	Label,Bar Code [120]
TLABR1130AWZZ	J		Label,Bar Code [125]
TLABZ0711AWZZ	J		Label,Feature,Tape 1 [120]
TLABZ0712AWZZ	J		Label,Feature,Tape 2
TLABZ0718AWZZ	J		Label,Feature,Tape 1 [125]
RRMCG0229AWSA	J	AR	Remote Control
GFTAB1022AWSB	J	AK	Battery Lid,Remote Control

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~3	92LPWB3325MANS	J	—	Main/Display/Headphones (Combined Ass'y) [BA120]
PWB-A1~3	92LPWB3326MANS	J	—	Main/Display/Headphones (Combined Ass'y) [BA125]
PWB-B	92LPWB3303CDUS	J	—	CD Servo
PWB-C	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only)

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
PWB-D	—	—		Tape Mechanism
PWB-E	92LPC99C017	J		CD Loading Motor (PWB Only)

OTHER SERVICE PART

UDSKA0004AFZZ	J	AZ		CD Pickup Lens Cleaner
---------------	---	----	--	------------------------

CP-BA120/125

SPEAKER BOX PARTS

901	92LJ1911B	J	AU	Net Frame Ass'y
902	92L9553C	J	AW	Speaker Box Ass'y
903	92LJ9797C	J	AE	Port Cushion
904	92LP5880	J		Label,Specifications [CP-BA125]
904	92LP5879	J	AC	Label,Specifications [CP-BA120]
905	92LF1377A	J	AC	Screw,ø3.5×12mm
906	92LD4680C	J		Speaker Cord
907	92LJ1912B	J	AX	Duct Panel
SP1,2	VSP0010PBY38A	J	AU	Speaker

SPEAKER PACKING PARTS

92LN1885B	J			Packing Add.,Speaker,Bottom
92LN1885T	J			Packing Add.,Speaker,Top
92LV4974A	J	AC		Polyethylene Bag,Speaker

GBOXS0042AWM1

SPEAKER BOX PARTS REAR SPEAKER (CD-BA125 Only)

901	92LSRCNF006RS	J		Net Frame Ass'y
902	92LSRCBC010RS	J		Bottom Cabinet
903	92LSRSC004RS	J	AK	Speaker Cord
904	92LSRCSW005RS	J	AB	Screw,ø3×12mm
905	92LSRCPL016RS	J		Label,Parts Code
SP3,4	VSP0080PBP2WA	J		Speaker

SPEAKER PACKING PARTS

92LSRCBP012RS	J			Packing Add.,Bottom
92LSRCPE006RS	J	AB		Polyethylene Bag,Speaker
92LSRCTP011RS	J			Packing Add.,Top

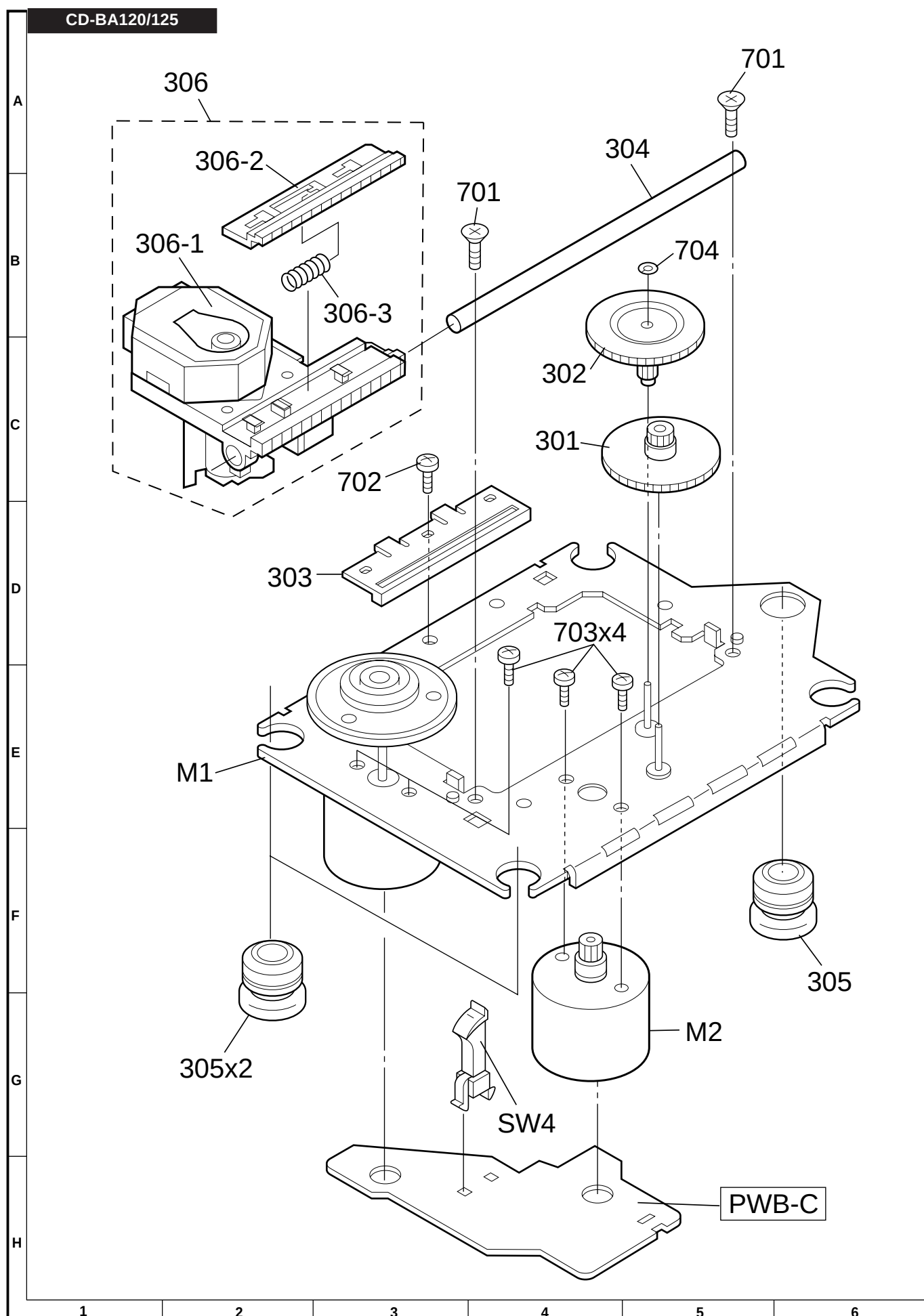


Figure 6 CD MECHANISM EXPLODED VIEW

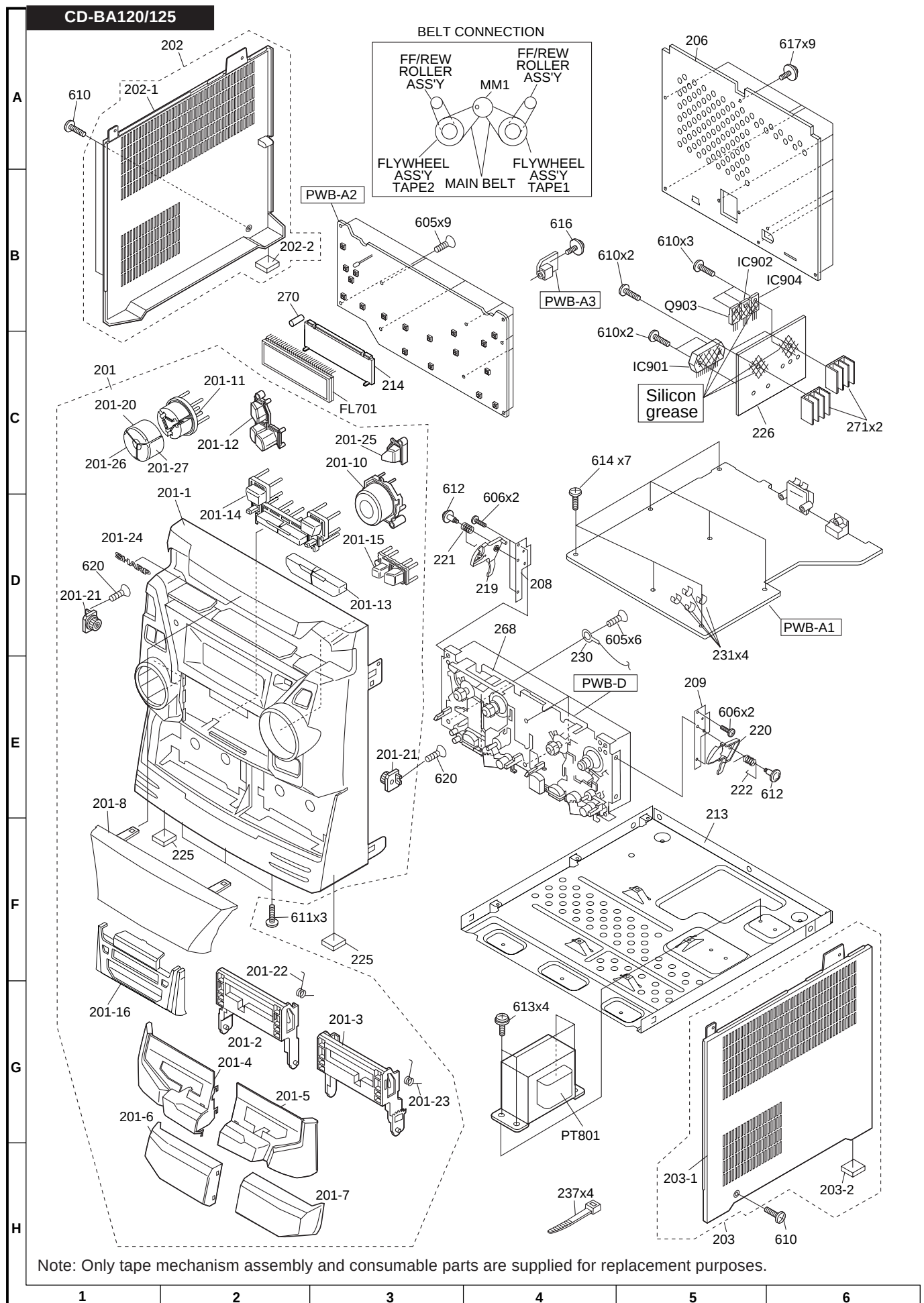


Figure 7 CABINET EXPLODED VIEW (1/2)

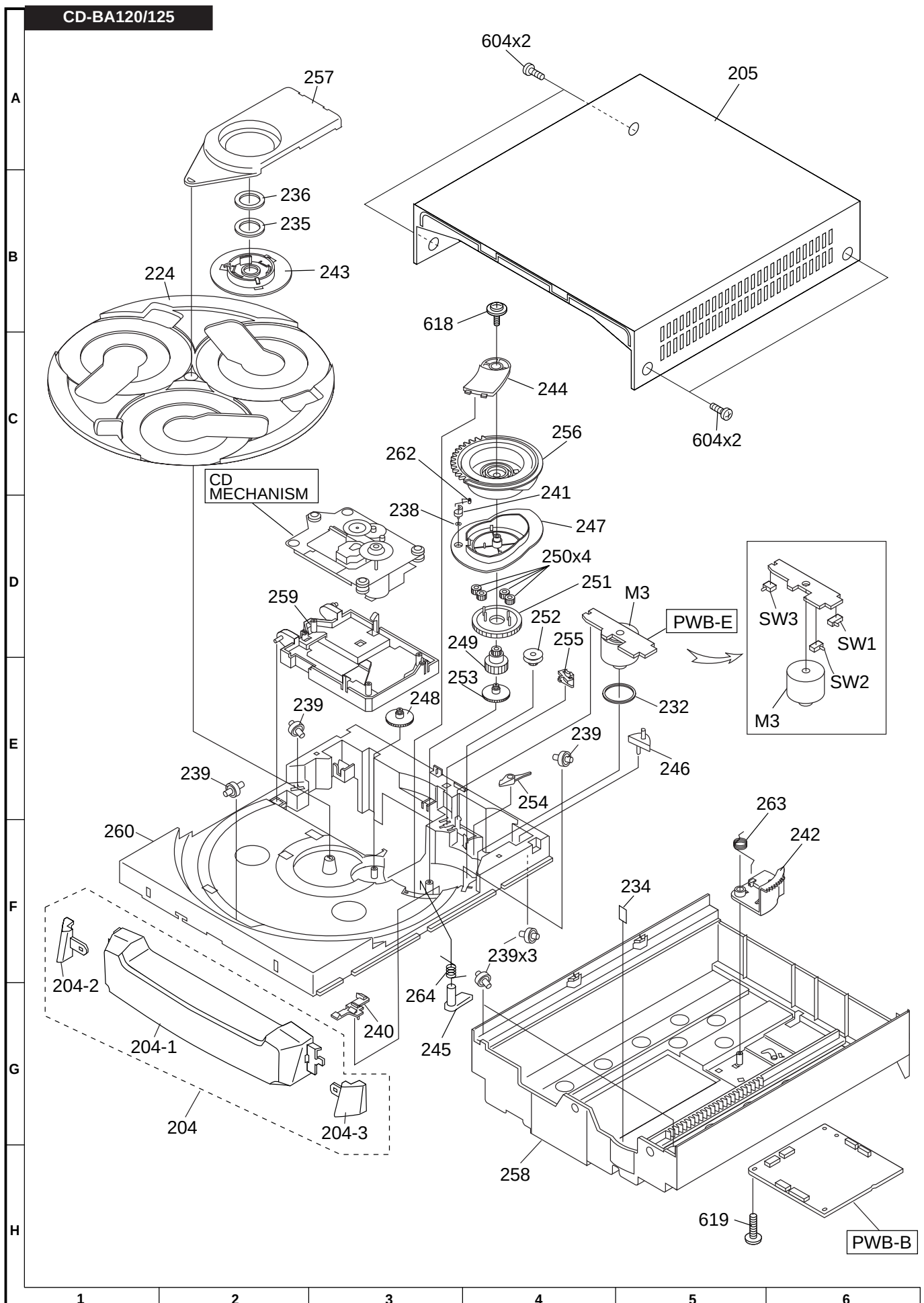


Figure 8 CABINET EXPLODED VIEW (2/2)

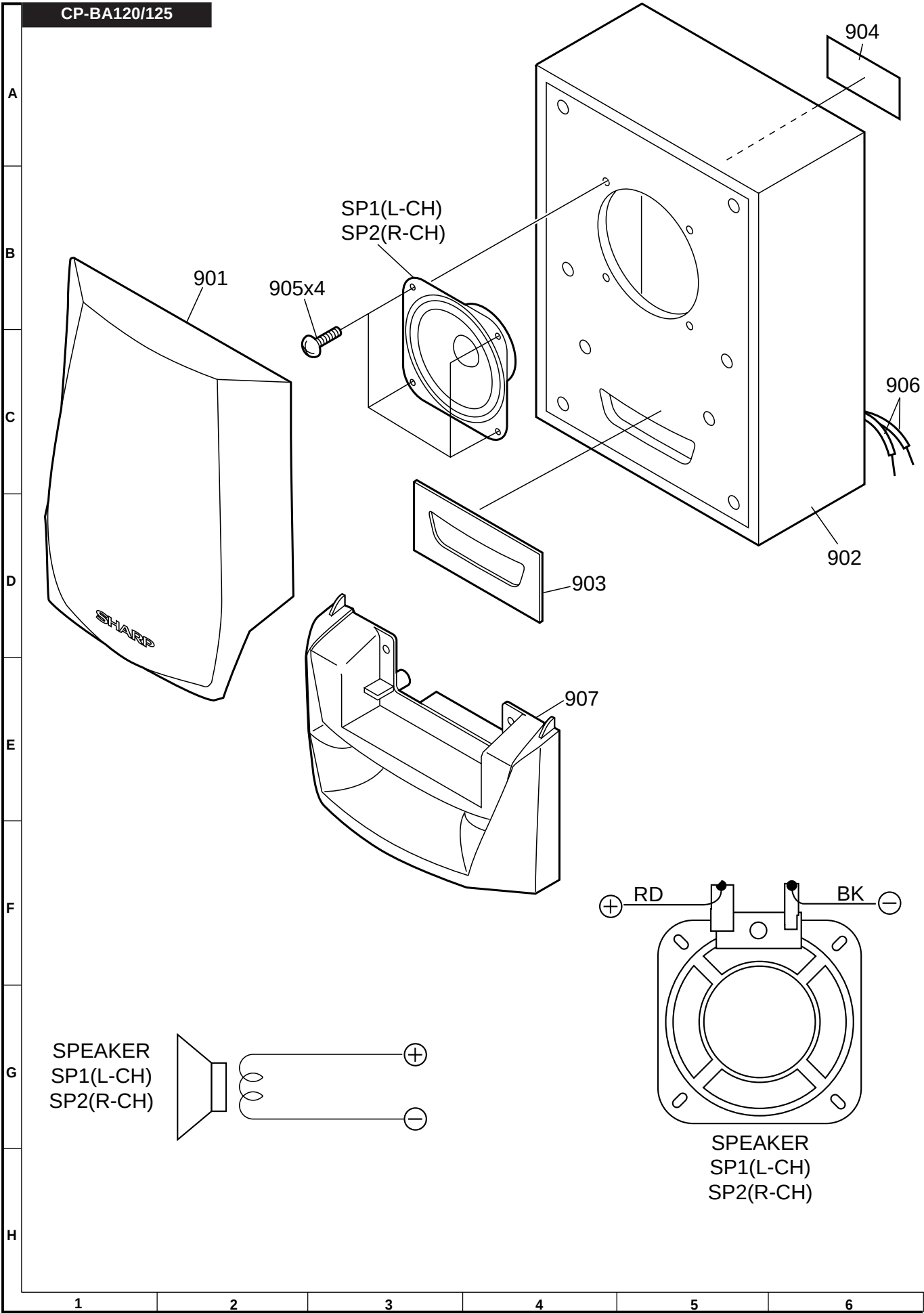


Figure 9 SPEAKER EXPLODED VIEW (1/2)

GBOXS0042AWM1

CD-BA125 ONLY

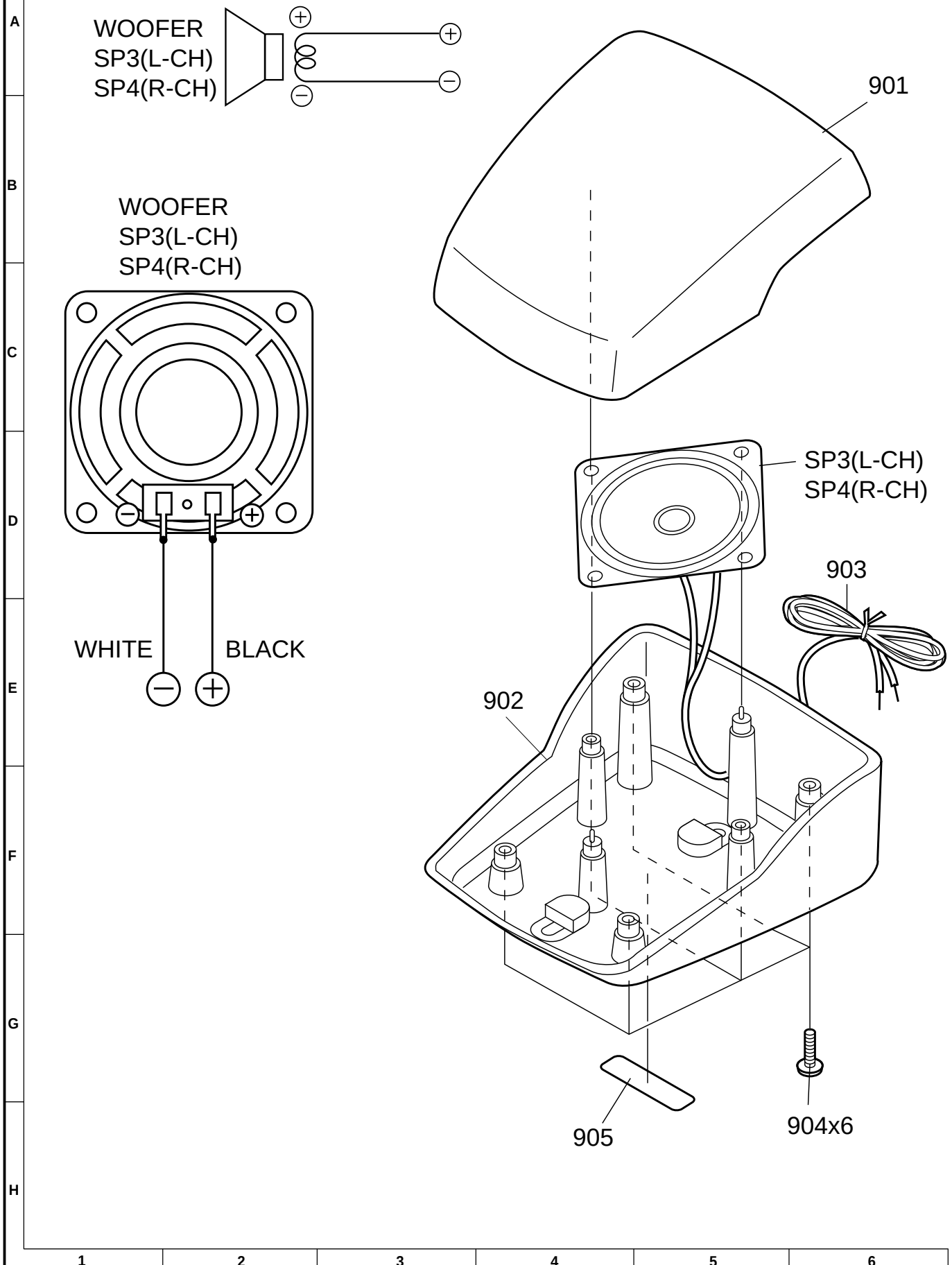
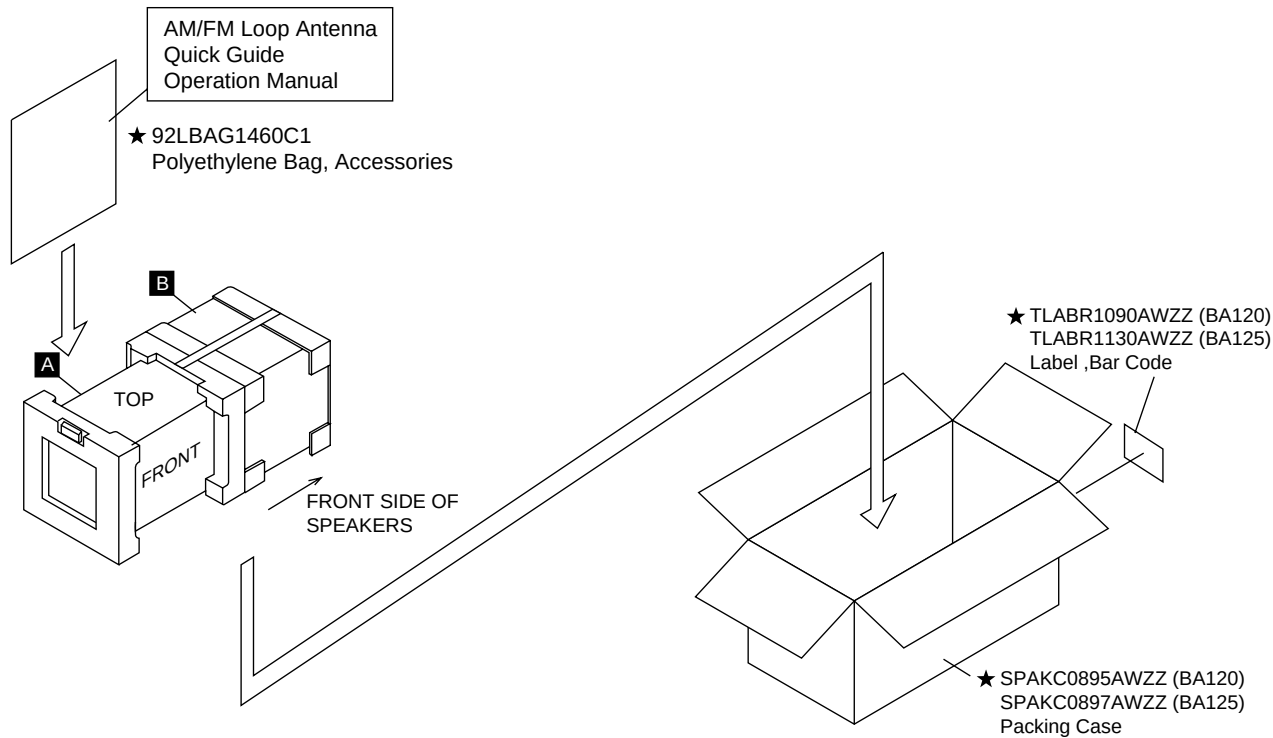
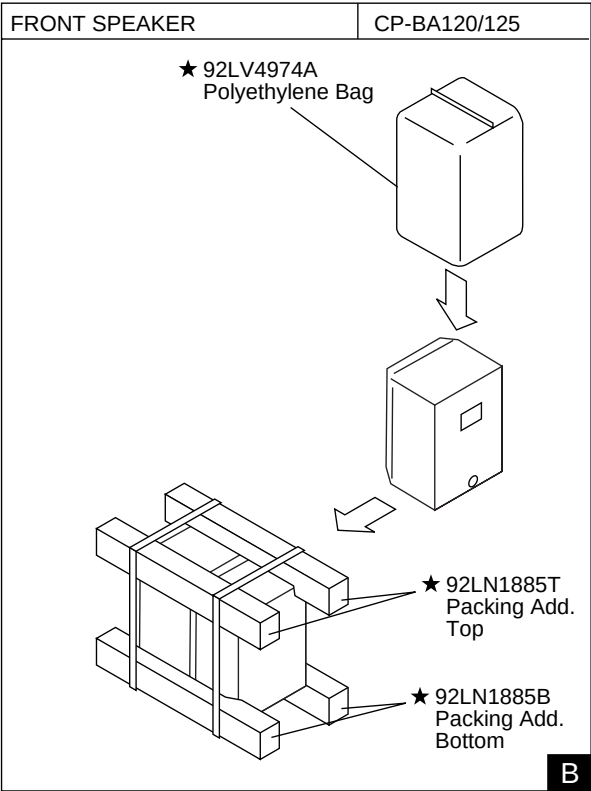
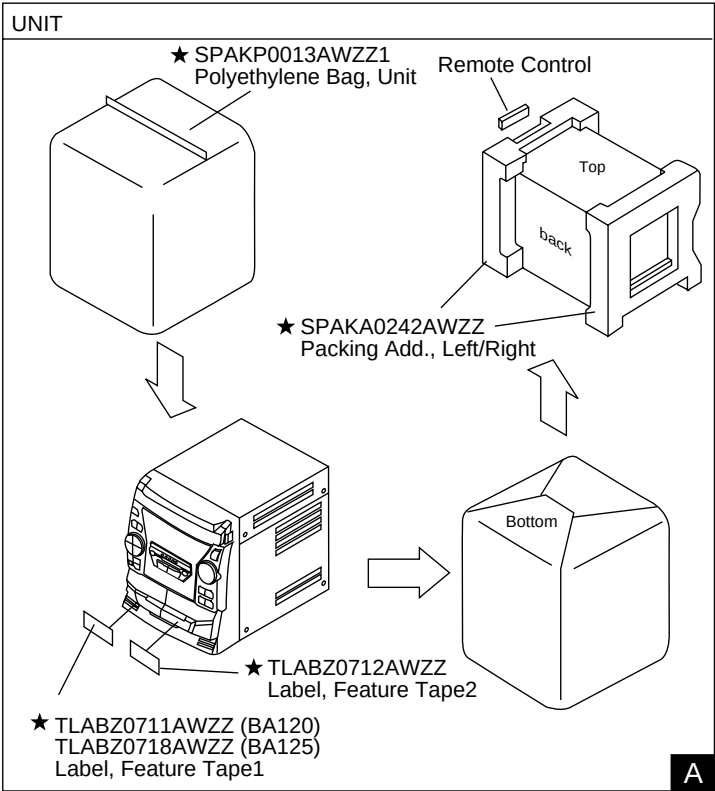


Figure 10 SPEAKER EXPLODED VIEW (2/2)

PACKING OF THE SET (FOR U.S.A. ONLY)

Setting position of switches and knobs	
Tape Mechanism	STOP



★Not Replacement Item

— MEMO —

SHARP

COPYRIGHT © 2000 BY SHARP CORPORATION

ALL RIGHTS RESERVED.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission of the publisher.

SHARP CORPORATION
Communication Systems Group
Quality & Reliability Control Center
Higashihiroshima, Hiroshima 739-0192, Japan
Printed in Japan

A0002-2627NS•HA•I

SC • SL • LAG